

Research Paper

Capital Structure Adjustment Speed in Indonesia: Does Sharia Compliance Matter?

Arum Pujiastuti^{a,1*}, Saefudin^{a,2}, Rizki Dini Shandra Yunita^{b,3}, Yuni Astuti^{c,4}

^a Faculty of Economics and Business, Universitas Selamat Sri Kendal, Indonesia

^b College of Management, National Yunlin University of Science and Technology, Taiwan

^c Faculty of Islamic Economics and Business, UIN Raden Mas Said Surakarta, Indonesia

¹ arum_pujiastuti@uniss.ac.id*, ² sasep8556@gmail.com, ³ d10924004@yuntech.edu.tw,

⁴ yuni.astuti@staff.uinsaid.ac.id

*corresponding author

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ABSTRACT

Leverage Speed of Adjustment (henceforth SOA) has previously been studied by researchers; however, the examination of its connection with sharia law has been overlooked. The majority of the literature currently in circulation comes from the Middle East and North Africa (MENA) region and Malaysian markets, so its implications for businesses in Indonesia may not be applicable given local regulations and cultural norms. This study investigates the distinction in the debt levels and the SOA of firms in Indonesia based on compliance to sharia law. The Two-step Generalized Method of Moment (GMM) model was used to calculate the SOA in the leverage model. We discover that sharia compliance plays a role in stimulating the Indonesian firm's level of debt and leverage SOA. To put it more precisely, sharia firms use less debt and have a slower SOA than conventional firms. Overall, Indonesian firms implement the dynamic trade-off theory in their leverage framework. Instead of relying on conventional debt, which is only available at certain levels, sharia firms must issue Islamic debt instruments to accelerate the speed of adjustment. Even after a robustness test using various sharia compliance approaches, our results remained consistent.

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Introduction

[Modigliani and Miller \(1958\)](#) pioneered academic research in corporate finance with their study on optimal capital structure in 1958. Numerous theoretical and empirical attempts have been made in the following research to solve the capital structure puzzle. Nevertheless, the outcomes mostly contributed to conventional corporate finance. We have witnessed the rise of a new generation of scholars and practitioners specializing in various aspects of Islamic finance as knowledge and practice. This has created a new dynamic and also a higher level of sophistication ([Yildirim et al., 2018](#)). Islamic finance deals with sharia law. Numerous theoretical and empirical attempts have been made in the following research to solve the capital structure puzzle. sharia businesses view Islamic principles as essential to their business practices. These businesses would not carry out any actions that Islam forbids.

Sharia-compliant firms have to follow Islamic rules to preserve their compliant status ([Alnori & Alqahtani, 2019](#)). Regarding capital structure, sharia firm is stricter to choose their financing option. However, conventional firms are not subject to the regulation. Conventional finance is primarily a debt-based market that agrees on risk transfer, whereas Islamic finance is asset-based and primarily focuses on risk sharing ([Hadi et al., 2018](#)). The Indonesian Sharia Council rules that businesses adhering to sharia law must keep their debt levels under 45% of their equity. Although the debt limit is up to 45%, Islamic financial instruments may be added to the capital structure as an alternative of financing without violating the sharia rules.

In capital structures, Islamic financial instruments are still uncommon. Even in a Muslim country, most firms still use conventional financing methods. For instance, sharia-compliant businesses must still keep their debt levels low. Conversely, conventional is unaffected by the regulations and can maximize its financial options when deciding on its capital structure. This difference in perspective inspires us to investigate the new insight of corporate finance on the development of Islamic finance.

In terms of financial characteristics, researchers distinguish between sharia and conventional firms. Employing data from Indonesia, [Hakim et al. \(2021\)](#) found that less cash is held by sharia-compliant companies in Indonesia. In MENA countries, sharia firms carried high dividends due to maintaining a low level of debt ([Farooq & Tbeur, 2013](#); [Guizani, 2017](#)). [Anwer et al. \(2021\)](#) confirm that sharia-based reasons for a higher propensity for total payout include greater profitability, stronger retained earnings, a lower debt to capital composition, and less asset expansion. In sharia firms, the debt must be kept to a minimum. The lower a firm's leverage ratio, the greater its likelihood of paying dividends. [Akinsomi et al. \(2015\)](#) also found that sharia firms are inclined to maintain lower debt. In summary, those firms that implement sharia compliance obligated to manage a low level of debt.

Further, the previous studies provide several mixed results regarding leverage SOA. In comparison to the literature on conventional stocks, [Narayan et al. \(2021\)](#) documented that the leverage SOA is faster, which is in line with the trade-off theory. [Hussain et al. \(2018\)](#) reported that sharia-compliant firms in Malaysia adjust their debt rapidly when firms are underleveraged. However, it reverses when firms are overleveraged, the non-sharia firms adjust their debt ratio quickly. Using both book and market leverage, [Alnori and Alqahtani \(2019\)](#) investigated the capital structure adjustment speed in Saudi Arabia. Due to the numerous restrictions in choosing the source of financing, sharia firms have

lower levels of debt and slower leverage SOA than non-sharia firms. In conventional financial literature, [Warr et al. \(2012\)](#) showed that over-leveraged firms correct faster to the target debt ratio. Those firms imply issuing new equity or selling their debt. The underleveraged company, on the other hand, adjusts its debt ratio much more slowly to reduce its debt. Similarly, [Cahyaningdyah \(2021\)](#) stated that adjustment costs influence whether the capital structure is adjusted quickly or slowly toward target leverage. When a company is above its target leverage, the adjustment costs are higher because the pressure to return to the target is greater, resulting in a faster adjustment speed. Companies with debt below the target, on the other hand, have a low cost of deviation and low pressure to adjust, resulting in a slow rate of adjustment. From another point of view, [Nguyen et al. \(2021\)](#) found both high and low levels of debt firms adjusting more quickly towards their target levels than the mid-debt level.

The foregoing description is behind our reasons for investigating the differences in debt levels and leverage SOA of Indonesian companies based on their compliance with sharia law. The prior studies documented the institutional factors ([Elango & Lahiri, 2014](#)), political uncertainty ([Çolak et al., 2017](#)), cross-country adjustment costs ([Drobotz et al., 2015](#)), and social trust in country origin ([Huang et al., 2021](#)) were determining the speed of adjustment. The majority of the literature currently in circulation comes from the MENA and Malaysia markets, so its implications for businesses in Indonesia may not be applicable given local regulations and cultural norms. We enhance new insight of research in the capital structure field and Islamic financial approach focusing on Indonesia. Specifically, we intend to highlight the firm behavior regarding the component of capital structure and the speed of adjustment. We argue, that if the sharia-compliant firm has to maintain a lower debt ratio, we expect the firm have a slower adjustment speed. However, if sharia doesn't affect debt level, sharia firms benefit from the flexibility to choose their financing, thus accelerating the leverage SOA.

Despite some literature that has explored the implication of sharia to corporate finance, there are still many unresolved questions in the previous study. The link between sharia compliance and the speed of adjustment of capital structure has not been deeply investigated in a specific nation. Thus, this study examines the relationship between sharia compliance and the speed of adjustment of capital structure in Indonesia.

Hypothesis Development

According to conventional finance, the two most popular theories for determining a firm's capital structure decision are the pecking order theory and the trade-off theory. While the pecking order argues that internal financing methods are preferred over all others. Thus, firms utilize internal financing before issuing debt and will only consider offering equity as a final option ([Myers and Majluf, 1984](#)). Both theories explain why firms prefer to employ debt in their capital structure. However, debt is one of the most divisive topics in Islamic finance, which is why Islamic regulatory bodies have imposed limitations on its use.

We proposed two potential hypotheses regarding the leverage of sharia and conventional firms. The financing constraints on sharia enterprises are projected to have a detrimental effect on their debt levels in their capital composition. Specifically, these firms have fewer funding channels available to them than conventional firms ([Akinsomi et al., 2015](#)), limiting their financing options. Sharia firms invest much less than conventional

firms (Akguc & Al Rahahleh, 2021). As a result, firms with more investment opportunities are more affected by the lower investment. In part, this is because sharia businesses have restricted access to capital due to their desire to maintain low debt levels. Meanwhile, the others examine the cash holding, dividend policy, and earning management as a consequence of maintaining low leverage (Farooq & AbdelBari, 2015; Farooq & Tbeur, 2013; Hakim et al., 2021). Hence, our first hypothesis is:

H₁: *Sharia-compliant firms have low levels of debt.*

Following that, this study investigates an interacting relationship between capital structure adjustment speed and sharia. The trade-off theory proposes that companies will determine their target level of leverage and then gradually move towards achieving this level (Myers, 1984). On the other hand, according to Pecking Order, efforts to achieve the ideal capital structure are not what drive changes in debt ratios; rather, the need for external funding is. Highly profitable businesses with limited investment opportunities strive to reduce their debt ratio. When a company's investment opportunities exceed its internal funds, it required issuing debt. There are costs that must be incurred by the company for it to achieve its optimal targets or to get external financing. The dynamic trade-off theory suggests that companies will maintain debt levels that are within the desirable range for their particular situations (Dudley, 2007). To maximize firm value when the firm's actual leverage differs from its target leverage, the firm must modify its capital structure. However, capital restructuring costs are substantial if the fund is forced to rely on external financing to achieve the desired capital structure. According to the theory, firms that deviate from their target leverage will only adjust their leverage to the target if the cost of adjustment exceeds the cost of deviation. In other words, firms will only adjust their leverage following the target if doing so is more costly than not doing so.

As sharia firms must adhere to sharia regulations, Alnori and Alqahtani (2019) found that the costs of debt financing transactions increase as sharia firms are subject to more restrictions. Additionally, due to the limited financing options available to these businesses, their capital structure adjustments will take longer than those of non-sharia compliant-companies. In particular, compared to non-sharia firms, sharia firms have less access to financing channels and are subject to more restrictions and regulations, which makes them less equipped to deal with weaknesses in the financial market (Alnori & Alqahtani, 2019). Consequently, the sharia-compliant firms are anticipated to incur higher adjustment costs, and their capital structure is anticipated to adjust more slowly to the target leverage ratio than non-Sharia firms. Thus, we hypothesize:

H₂: *Sharia-compliant firms have slower leverage speed of adjustment.*

Method

Sample Selection and Data Sources

This research focuses on the firms in Indonesia. Thomson Reuters Eikon, which covered the years 2004 to 2018, receives accounting data primarily. As recommended by Do et al. (2018) and Lin et al. (2021), we included all firms in Indonesia except financial firms with SIC code 6000-6999 and regulated utility firms with SIC code 4900-4999. We put data from sharia firm from the Jakarta Islamic Index (JII) for the baseline and Indonesia Sharia Stock Index (ISSI) for the robustness test. We only use the second period of the list of sharia firms because the sharia index is evaluated twice a year. Lagged variables are

modeled in this study. As a result, the sample should be observed for at least three continuous years. Finally, there are 265 firms in our sample, a panel that is unbalanced and has 3.454 firm-year observations.

Instrument and Data Analysis

This study examines the distinction between a firm's debt level and sharia compliance. We used a parametric and non-parametric approach by using a t-test and rank-sum test as adopted by Alnori and Alqahtani (2019). We also employed regression linear analysis to compare the debt level according to how closely they comply with sharia law by using a dummy variable as the main variable in the model. The debt level is defined as the leverage ratio which is total book leverage at year t scaled by total assets at year t. Meanwhile, the dummy variable equals 1 if sharia firm, otherwise 0. We also included control variables in a regression model to relieve variable bias which is: 1) Firm size (Size) measuring the log of total assets; 2) Tangibility of assets (Tang) is measured by dividing the total fixed assets at year t to total assets at year t; 3) Market to book ratio (MBR) is the ratio of the firm share's market value divided by its book value; 4) Return on assets (ROA) is the ratio of total net profit of year t scaled by total assets at year t; and lastly, 5) Median leverage (MedLev) is median leverage of industry based on SIC and year.

This regression model (1) is to observe whether firm compliance with sharia has a higher (lower) leverage ratio compared to those conventional firms. We also consider the firm fixed effect and industry fixed effect to include in the model. Hence, the model is as follow:

$$LEV_{i,t} = \beta_0 + \beta_1 Sharia_{i,t} + \sum_{n=1}^N \beta_k X_{k,i,t} \quad (1)$$

The study calculated the SOA for a sample as a whole and a sample based on sharia compliance. We calculated SOA as follows:

$$\Delta LEV_{i,t} = LEV_{i,t} - LEV_{i,t-1} = \delta(LEV^*_{i,t} - LEV_{i,t-1}) + \varepsilon_{i,t} \quad (2)$$

Where: $LEV_{i,t}$ is the firm's book leverage ratio at the end of period t and $LEV_{i,t} - LEV_{i,t-1}$ is the leverage adjustment between periods t-1 and t. $LEV^*_{i,t} - LEV_{i,t-1}$ is the deviation to the desired leverage ratio. δ is a year's worth of proportional adjustment for a firm, and $\varepsilon_{i,t}$ is an unassociated error term. In this case, captures the fraction of leverage deviation, and this estimated coefficient is used to measure the SOA ($SOA=1-\delta$). Adjustment is immediate if $SOA=1$, but not if $SOA=0$ indicates that the desired leverage ratio is not adjusted at all.

The desired leverage ratio, $LEV^*_{i,t}$ is not explicitly observed but is often described as a result of the unique characteristics of a firm, as shown below:

$$LEV^*_{i,t} = \sum_{n=1}^N \beta_k X_{k,i,t} \quad (3)$$

Where: β is a vector of coefficients. $X_{k,i,t}$ is a vector of firm characteristics that correspond to the costs and benefits of operating at various leverage ratios, which consist of Size, Tang, MBR, ROA and MedLev. Then, model (2) may be rewritten as follows:

$$LEV_{i,t} = LEV_{i,t-1} + \delta(\sum_{n=1}^N \beta_k X_{k,i,t} - LEV_{i,t-1}) + \varepsilon_{i,t} \quad (4)$$

$$LEV_{i,t} = (1 - \delta)LEV_{i,t-1} + \sum_{n=1}^N \delta\beta_k X_{k,i,t} + \varepsilon_{i,t} \quad (5)$$

This equation is to estimate the capital structure determinants and the leverage SOA to the desired leverage ratio. Because Eq. (5) is dynamic, we anticipate the bias and inconsistent result in accordance with using traditional pooled OLS or fixed effect estimators, by adopting the Blundell and Bond two-step generalized method of moments (GMM) established in 1998.

Regarding the hypothesis of whether being sharia affects the leverage SOA, we employ the model in eq (5) which is adapted to past research of Cook and Tang in 2010 and Flannery and Rangan in 2006. Moreover, we also add an interaction variable between lagged leverage and sharia dummy to appeal the respective leverage SOA between firms based on sharia compliance following Park et al. (2013) and Alnori and Alqahtani (2019). The interaction variable served as the primary variable in our regression on leverage SOA. Sharia firms have slower leverage SOA if the sign is both positive and significant. Sharia-compliant firms, however, have faster leverage SOA than non-compliant firms if the sign is negative and significant. The following equation illustrates our regression equations for speed of leverage adjustment:

$$\begin{aligned} LEV_{i,t} = & \\ & \beta_0 + \\ & \beta_1 Sharia_{i,t} + \\ & (1 - \\ & \beta_2) LEV_{i,t-1} + \\ & \beta_3 Sharia * LEV_{i,t-1} + \\ & \sum_{k=1}^N \delta \beta_k X_{k,i,t} + \\ & \varepsilon_{i,t} \end{aligned} \quad (6)$$

Results

In Table 1, our sample distribution is provided. Due to our sharia sample based on JII criteria, the number of non-sharia-compliant firms is greater than the number of sharia-compliant firms. Only 291 firm-year observations, or 8%, are firm compliance with sharia law. Meanwhile, the rest are conventional firms.

Table 1. Sample Distribution

Industry	Sharia	Non-Sharia
Agriculture, Forestry, and Fishing	13	72
Mining	71	340
Construction	70	405
Manufacturing	86	1,264
Transportation and Utilities	34	403
Trade	16	465
Services	1	214
Total Observations	291	3,163
%	8%	92%

Table 2 shows the descriptive statistic of observed variables. Firms in Indonesia suggest external sources make up 29.9% of the capital structure. Compared to ASEAN countries, this level of debt is relatively high. Lin et al. (2021) report the debt ratio is around 22% in ASEAN nation. Regarding the control variables, the firm in Indonesia has a Size of 12, and the Tang variable displays 42.8% of the total assets. The market value of the

majority of Indonesian companies is higher than the equity's book value, as evidenced by the difference of \$0.399 between the two. Last but not least, MedLev's ROA is 5.6% and its debt ratio averages 29.1%.

Table 3 displays the correlation matrix between leverage and all control variable. Leverage has a significant positive relationship with Size and MedLev while having a negative relationship with tangibility and return on assets.

Table 2. Descriptive Statistic

Variables	Mean	Std. Dev.
Lev	0.299	0.236
Size	12.028	1.708
Tang	0.428	0.437
MBR	2.399	19.769
ROA	5.615	11.036
MedLev	0.291	0.209
Observations		3,454

Notes: This table reports descriptive statistics for all variables in the regression model. The sample cover 3,454 firm-year observations from Indonesia over the period 2004-2018.

According to Akguc (2021) large corporations may be tempted to exceed the allowable debt limit under Sharia law. Financial leverage that results in negative profitability suggests that profitable firms prefer internal financing over external debt. Although most studies found a positive correlation between tangibility and leverage, our findings show the opposite. The determinant variables can be used to simulate a target debt ratio that changes over time. Despite the preliminary evidence provided by the correlation analysis in Table 3, the basic specification of the target debt ratio in Equation 5 is further tested by running GMM estimator.

Table 3. Correlation Matrix

Correlation	Lev	Sharia	Size	Tang	MBR	ROA	MedLev
Lev	1.000						
Sharia	-0.006 ***	1.000					
Size	0.072 ***	0.182 ***	1.000				
Tang	-0.526 ***	0.004 **	-0.041 **	1.000			
MBR	0.007	0.173 *	-0.019	0.082 ***	1.000		
ROA	-0.237 ***	0.629 ***	0.165 ***	0.092 ***	0.034 **	1.000	
MedLev	0.605 ***	-0.005 ***	0.001	-0.317 ***	-0.014	-0.169 ***	1.000

Notes: This table shows the simple correlations of variables selected from Indonesia from 2004 to 2018. ***, **, and * indicate the level of significance at 1%, 5%, and 10% respectively.

Table 4 provides the parametric and non-parametric tests to examine the differences between sharia and non-sharia firm debt level. The results verify that the mean and median leverage ratios are significantly different. Sharia firms have significantly lower mean leverage than conventional firms, as shown in the means difference test (*t*-test). Furthermore, the rank sum z-scores test also supports our findings that the sharia firm has lower median leverage than conventional firms. Overall, univariate tests show that firms

that conduct sharia in their activity have significantly lower debt levels than conventional firms. Although simple univariate tests can be used to conclude, those tests do not consider the other internal and external variables that have been discovered to influence capital structure decisions. Thus, we use the models outlined by the literature to examine any differences in capital structure among firms in the same market, as suggested using Equation (1).

Table 4. Univariate Test

		Sharia	Non-sharia
LEV	Mean	0.226	0.306
	Median	0.209	0.2815
	<i>t</i> -test (difference in mean)		-7.623 ***
	rank sum z (difference in median)		-5.357 ***

Notes: This table summarizes univariate test results, denotes the mean and median difference between sharia and non-sharia firms. ***, **, and * indicate the level of significance at 1%, 5%, and 10% respectively.

Table 5 summarizes the regression analysis in Equation (1) by involving a dummy variable to define a company according to sharia. Table 5 shows that sharia is negative and statistically significant at a level of 1%. These findings confirm that sharia firms have much lower debt levels than non-compliant companies.

Table 5. Regression Results to Compare the Debt Level between Sharia-compliant and Non-Sharia Firms

Variable	
Sharia	-0.054 *** (-3.377)
Size	0.020 *** (2.862)
Tang	-0.183 ** (-2.089)
MBR	0.001 * (1.954)
ROA	-0.003 *** (-4.733)
MedLev	0.055 *** (2.677)
Constant	-0.020 (-0.225)
Adjusted R ²	58%
Number of firms	265
Observations	3,454
Industry fixed effect	Yes
Time fixed effect	Yes

Notes: The table summarizes the pooled OLS regression output for mixed samples of sharia and non-sharia firms from 2004 to 2018. Book leverage is the dependent variable in our model. T-statistic reported in parenthesis. ***, **, * indicate level of significant at the 1%, 5%, and 10% respectively.

Table 6 reports that there is a dynamic capital structure in Indonesian firms. The GMM estimator output indicates that the lagged leverage variable has a positive coefficient under all specifications. Those coefficients are between 0 and 1 across the samples. In Table 6, column (1), the value of lagged leverage is 0.127, which indicates that the firms in our mixed sample adjust their capital structure at a rate of approximately 87.3 percent. It means that within one year, these firms close approximately 87.3% of the distance between the previous leverage and target leverage. Further, SOA is equal to 0.336 ($=\ln(0.5)/\ln(1-0.873)$) years to shift halfway toward their desired leverage.

More specifically, our main focus is to highlight the distinction of leverage SOA of the firm based on their compliance with the sharia law. Therefore, the coefficient on the interaction variable (Lev(t-1) * Sharia dummy) will confirm our next hypothesis (H2) that sharia-compliant firms have slower SOA. The interaction of the lagged leverage and the sharia dummy in column (1) (0.476) shows a positive and significant level of 10%. These results confirm that the speed of adjustment of the capital structure toward target leverage for sharia-compliant firms is lower than those of the latter firms.

In addition, we also include the regression model based on the sharia sample to support the findings in column (1). We divide the sample into two groups according to their compliance with sharia. Column (2) reports the model use the sample of sharia firms and column (3) reports the model uses the sample of non-sharia firms. The output shows that statistically, the results of the study support the hypothesis (H1b), that the leverage adjustment speed of sharia companies (73.2%) is lower than non-sharia companies (85.4%). These findings confirm that, due to the additional restrictions imposed by Islamic regulations, the higher transaction costs associated with debt financing, and the decreased accessibility of financing channels, these firms adjust more slowly.

Table 6. Regression results comparing the leverage SOA between Sharia and non-sharia firm

Variable	(1)	(2)	(3)
LEV(t-1)	0.137 *** (6.893)	0.268 *** (23.906)	0.146 *** (8.145)
Sharia	-0.150 * (-1.789)		
Sharia*LEV(t-1)	0.476 * (1.926)		
SIZE	-0.012 (-1.336)	0.029 *** (8.739)	-0.010 (-1.371)
TANG	-0.405 *** (-14.224)	-0.491 *** (-40.333)	-0.448 *** (-15.797)
MBR	0.000 (-1.392)	0.002 *** (3.595)	-0.001 (-1.117)
ROA	-0.001 *** (-2.692)	-0.002 *** (-25.860)	-0.001 *** (-3.605)

Variable	(1)	(2)	(3)
MEDLEV	0.3685 *** (7.581)	-0.024 *** (-3.135)	0.352 *** (8.242)
Observations	2,924	243	2,681
AR (1)	0.000	0.808	0.000
AR (2)	0.805	0.968	0.775
Sargan test	0.695	0.646	0.181
Wald test (<i>p</i> -value)	0.010	0.000	0.000

Notes: The table above reports regression results of the speed adjustment of capital structure using the GMM estimator. The dependent variable is book leverage. T-statistic reported in parenthesis. ***, **, * indicates significant level at 1%, 5%, and 10% respectively.

To robust our findings, we re-estimate the regression model using different sharia samples and periods. In the previous section, our main sharia sample was obtained from Jakarta Islamic Index (JII) and the research start from 2004 to 2018. We used the Indonesia Sharia Stock Index (ISSI) from 2011 to 2018 data. The screening method to compose ISSI is wider than JII. ISSI comprises all sharia firms listed on the Indonesia Stock Exchange, while the JII consists of the 30th best market capitalization and liquidity of the sharia-compliant firm. Therefore, it will decrease the gap of our unequal sample between sharia and non-sharia compliant firms. Finally, our final sample for the robustness test consists of 1,260 sharia firms and 727 non-sharia firms from the period 2011 to 2018. The chosen sample will be re-estimated using equations (1) to (6). The OLS model used to estimate equation (1) in Table 7 shows that the dummy Sharia is consistent with our main model. Further, the GMM model to estimate the equation (5) and (6), is also presenting the consistent result as shown in columns (1), (2), and (3).

Table 7. Robustness Tests

Variable	Debt levels	Speed of adjustment		
		(1)	(2)	(3)
LEV(t-1)		0.141 *** (7.078)	0.192 *** (6.880)	0.036 *** (7.517)
Sharia	-0.089 *** (-6.385)	-0.029 *** (-3.907)		
Sharia*LEV(t-1)		0.054 * (1.699)		
SIZE	0.020 *** (3.305)	-0.025 *** (-3.491)	-0.006 (-0.523)	-0.014 (-1.140)
TANG	-0.131 *** (-1.571)	-0.410 *** (-18.458)	-0.389 *** (-13.598)	-0.554 *** (-27.037)
MBR	0.000 (-0.406)	-0.001 *** (-2.661)	-0.003 *** (-3.125)	-0.002 *** (-8.678)
ROA	-0.003 *** (-3.654)	-0.003 *** (-10.781)	-0.003 *** (-7.721)	-0.003 *** (-21.181)
MEDLEV	0.385 ***	0.212 ***	0.006	0.072 **

Variable	Debt levels	Speed of adjustment		
		(1)	(2)	(3)
	(2.605)	(5.176)	(0.196)	(2.076)
Observations	1,982	1,974	1,225	719
AR (1)		0.000	0.008	0.000
AR (2)		0.626	0.950	0.212
Sargan test		0.237	0.669	0.452
Wald test		0.000	0.000	0.000

Notes: The table above reports regression results of leverage level using OLS estimator and the speed adjustment of capital structure using GMM estimator. The dependence variable is book leverage. T-statistic reported in parenthesis. ***, **, * indicate level of significant at the 1%, 5%, and 10% respectively.

Discussion

The result of this study confirms our hypotheses. The firm that conducts sharia in its operation has lower levels of debt in its capital structure than the conventional firms. In addition, the sharia firms adjust much more slowly in targeting leverage. This paper supports the first hypothesis that sharia-compliant firms have a lower level of debt. The result is consistent with previous studies (Akguc & Al Rahahleh, 2021; Akinsomi et al., 2015; Alnori and Alqahtani, 2019; Anwer et al., 2021; Guizani, 2017; Hakim et al., 2021). More precisely, this distinction exists because sharia firms are influenced by their adherence to Islamic law. According to the findings, financing restrictions on sharia firms have a negative impact on their leverage levels. Furthermore, sharia firms deal with more restrictions, have fewer financial channels, and thus less financial availability, than non-sharia-compliant firms.

Regarding the speed of adjustment, this study confirms the second hypothesis that the sharia firms have a slower adjustment of capital structure. This result is in line with a previous study conducted by Alnori and Alqahtani (2019). Despite the overall sample demonstrating rapid leverage SOA, the sharia firm moves more slowly than the conventional. Rather than relying on the pecking order or agency theories to explain why sharia-compliant firms have lower leverage levels and slower adjustment, the bankruptcy cost of trade-off theory or dynamic trade-off theory as the adjustment, which is not instant ($SOA \neq 1$), does a better job. The sharia firm faces a higher risk of bankruptcy costs than the non-sharia firm because they have fewer financing options, a higher cost of debt, and tighter restrictions on issuing new debt (Satt et al., 2020). This resulted from restrictions on debt-based financing and their compliance with these regulations (Alnori & Alqahtani, 2019). Consequently, they face a slower adjustment speed.

Even though sharia firms can issue Sukuk to reach the optimal leverage ratio (Mohamed et al., 2015), the market demand for Sukuk in Indonesia is still inferior. Sales of corporate Sukuk in Indonesia have not grown as rapidly as the sales of government Sukuk (Dewi et al., 2020). The information on corporate Sukuk remains limited (Zulkhibri, 2015) and there aren't many corporate Sukuk contracts available that satisfy investors' requirements (Rofi'ah, 2017). Thus, the policy maker should set the standard regarding the sharia financial instruments issue. This would reduce the inherent financial gap in terms of

cost and time between sharia-compliant and conventional firms, making it simpler for a sizable portion of the economy to obtain financing.

Conclusion

Our findings support the notion that Indonesian capital structure decisions are influenced by Sharia compliance. When compared to non-sharia firms, sharia-compliant firms have a significantly lower level of debt and a slower leverage SOA. In addition to adding to the discussion about the usefulness of trade-off theory in identifying a faster SOA to leverage for Indonesian firms, this study reveals a previously unrecognized relationship between sharia compliance and leverage SOA in Indonesia. Sharia firms can replace their debt with Islamic financial instruments along with clear regulations regarding the sharia debt issue should be established by the policymaker.

Authors' Declaration

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation, and discussion of results. The authors read and approved the final manuscript.

ORCID

Arum Pudjiastuti  <https://orcid.org/0000-0003-3140-6145>

Saefudin  <https://orcid.org/0000-0001-6196-9753>

Rizki Dini Shandra Yunita  <https://orcid.org/0000-0003-0394-5942>

Yuni Astuti  <https://orcid.org/0000-0002-4883-8908>

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