CHAPTER 6

RESULTS AND DISCUSSION – OBJECTIVE THREE: A PANEL THRESHOLD REGRESSION ANALYSIS

6.1 Introduction

This chapter reports the findings of objective three to examine whether there is a capital structure threshold in the relationship between capital structure and the sustainable growth rate (SGR) of Malaysian Shariah-compliant firms. Section 6.2 shows the results of the descriptive statistics of the analysis. Section 6.3 reports the results of the unit root test. Section 6.4 discusses the results of the threshold model for Leverage 1 (TDTE), Leverage 2 (TDTA), and Leverage 3 (TCDTA), which are estimated using the threshold estimation of Hansen (1999). Finally, Section 6.5 presents the conclusion of the findings.

6.2 Descriptive Statistics

The sample for this study comprises 181 Malaysian Public-listed Shariah-compliant firms from 2007 until 2016. According to the threshold analysis, the data of the analysis must be balanced[18]. Therefore, only selected companies with complete data were examined. As a result, only 86 Shariah-compliant firms finally fulfilled the criteria to serve as the final study samples. The structure of the panel data for each industry is shown in Table 6.1 below.

[18] This study does not include the Islamic debt to total assets in the threshold regression analysis because the data are not fully available for 10 years analysis.

Table 6.1: The Structure of the Panel Data

No.	Industry	No. of Records on Each Firm (10 years: 2007-2016)	No. of Balanced Data
1	Consumer Products	34	17
2	Industrial Products	58	27
3	Construction	19	8
4	Trading & Services	35	19
5	Properties	17	5
6	Plantation	18	10
	Total	**181**	**86**

Table 6.2 presents the descriptive statistics of the threshold analysis for the Malaysian Public-listed Shariah-compliant firms. The average SGR and company's efficiency (ATS) are 6.75% and 1.99, respectively. The minimum SGR is -1.02% and the maximum is 35%, and 7.84% is the standard deviation. The minimum and maximum ATS are -4% and 32.03, respectively. The average profitability (NPM), dividend policy (DPR), and total debt to total assets (TDTA) are 10%, 37%, and 21%, respectively. The minimum and maximum NPM are -496% and 141%, respectively, and the DPR and TDTA are 75% and 11%, respectively. The average Lev 1 (TDTE) and total conventional debt to total assets are 46.52% and 19.64%, respectively. The minimum TDTE is 1.00% and the maximum is 367%, and 45.8% is the standard deviation. The minimum TCDTA is 1.00% and the maximum is 57%, and 10.76% is the standard deviation.

Table 6.2: Descriptive Statistics of Threshold Analysis

Variables	Mean	Standard deviation	Minimum	Maximum
	Shariah compliant (N=860)			
Sustainable growth rate (SGR)	0.0675	0.0784	-1.0200	0.3500
Profitability (NPM)	0.1030	0.2337	-4.9600	1.4100
Company's efficiency (ATS)	1.9912	2.2326	-0.0400	32.0300
Dividend policy (DPR)	0.3736	0.7473	-7.7400	14.5300
Lev 1 (TDTE)	0.4652	0.4580	0.0100	3.6700
Lev 2 (TDTA)	0.2084	0.1137	0.0100	0.5900
Lev 3 (TCDTA)	0.1964	0.1076	0.0100	0.5700

6.3 Unit Root Test

Table 6.3 shows the results of the statistical test of the panel unit root tests. By referring to Hansen's (1999) panel threshold regression estimation procedure, panel unit root tests are adopted to confirm that the variables are stationary at *I(0)* in order to avoid incorrect inferences if the condition is not met.

Table 6.3: Panel Unit Root Tests

Variables	LLC	HT	IPS	ADF-Fisher	PP-Fisher	Hadri
Sustainable Growth Rate	-9.6545 (0.0000)	-12.8881 (0.0000)	-5.4283 (0.0000)	524.6531 (0.0000)	524.6531 (0.0000)	14.8105 (0.0000)
Lev 1 (TDTE)	-21.1976 (0.0000)	0.4102 (0.6592)	-0.8848 (0.1881)	254.3948 (0.0000)	254.3948 (0.0000)	28.5189 (0.0000)
Lev 2 (TDTA)	-14.2245 (0.0000)	-2.3169 (0.0103)	-1.3669 (0.0858)	226.2581 (0.0035)	226.2581 (0.0035)	25.3329 (0.0000)
Lev 3 (TCDTA)	-14.6539 (0.0000)	-6.2474 (0.0000)	-1.6994 (0.0446)	296.0029 (0.0000)	296.0029 (0.0000)	21.1860 (0.0000)
Dividend Policy	-36.2722 (0.0000)	-28.5281 (0.0000)	-7.3389 (0.0000)	704.7996 (0.0000)	704.7996 (0.0000)	0.4271 (0.3346)
Profitability	-7.3089 (0.0000)	-9.1767 (0.0000)	-3.6806 (0.0001)	459.1195 (0.0000)	459.1195 (0.0000)	21.9160 (0.0000)
Company's Efficiency	-4.9267 (0.0000)	-12.2491 (0.0000)	0.0154 (0.5061)	464.6872 (0.0000)	464.6872 (0.0000)	17.1069 (0.0000)
Firm's Size	-9.6545 (0.0000)	5.7205 (1.0000)	7.7837 (1.0000)	176.4087 (0.3930)	176.4087 (0.3930)	41.1465 (0.0000)

Notes: SGR = Sustainable growth rate based on Higgins (1977), the calculation is return on equity multiply retention ratio; NPM = Net profit margin (net income to sales); ATS = Assets to Sales; DPR = Dividend payout ratio (dividend per share to earnings per share); TDTA = Total debt to assets.

Based on the results above, the findings show the panel unit root tests results of Levin Lin Chu (Levin et al., 2002), Harris-Tsavalis (HT, 1999), Im Pesaran Shin (Im et al., 2003), augmented Dickey-Fuller (ADF) (Dickey and Fuller, 1979), PP-Fisher x2 (Phillips and Perron, 1988), and Hadri (Hadri, 2000). The study found that most of the variables are stationary at I(0) or have stationary characteristics since nulls of the unit root are rejected. This allows further analysis of the panel threshold regression.

6.4 Threshold model for Leverage 1 (TDTE), Leverage 2 (TDTA), and Leverage 3 (TCDTA)

Table 6.4 presents the *F*-statistics for the single, double, and triple thresholds effect together with their bootstrap p-values for Lev 1 (TDTE), Lev 2, (TDTA), and Lev 3 (TCDTA). This study uses 300 bootstrap replications to test for each of the three bootstrap tests. Firstly, the study fits a single threshold model with the null hypothesis H_0: $\beta_1 = \beta_2$ (no threshold effect), and the alternative hypothesis H_1: $\beta_1 \neq \beta_2$ (exist threshold effect).

Based on the results for Lev 1 (TDTE), the estimator of the single-threshold model is 1.4200 with 95 percent confidence interval [1.4200, 1.2000]. The *F*-statistics of 28.80 shows significant at the 1 percent level since it is higher than the critical value of 23.3929. This study directly fits the double and triple-threshold model based on the result above. The trimming values are set to be 0.01 and 0.05 for the estimation of the second and third thresholds. In the threshold table, single corresponds to H0 (linear model) and Ha (single-threshold model), Double corresponds to H0 (single-threshold model) and Ha (double-threshold model), and triple corresponds to H0 (double-threshold model) and Ha (triple-threshold model). Obviously, based on the results of the double-threshold and triple-threshold model the double-threshold and triple-threshold model are rejected. Thus, this study focuses on the single-threshold model for the rest of the estimation results for Lev 1 (TDTE).

The results for Lev 2 (TDTA) indicate that the estimator of the single-threshold model is 0.3700 with 95 percent confidence interval [0.3500, 0.3800]. The F-statistics of 17.31 show significant at the 5 percent level since it is higher than the critical value of 14.7510. Next, the estimator of the double-threshold model is 0.1400 and 0.3700 with 95 percent confidence interval [0.3550, 0.3800]. The F-statistic of 12.70 shows

significant at the 10 percent level since it is higher than the critical value of 10.7272. Regarding the fit a double or triple-threshold model, the double-threshold model is accepted with a probability value of 0.0867 while the triple-threshold model is rejected. Thus, Lev 2 (TDTA) focuses on the double-threshold model for the rest of the estimation results.

Table 6.4: Test for Threshold Effects between Debt Ratio and SGR

Test for single threshold		**Test for double threshold**		**Test for triple threshold**	
Lev 1 (TDTE)					
1.4200		0.0100 1.4200		0.0100 0.0600 1.4200	
F_1	28.80***	F_2	9.35	F_3	8.24
p-value	0.0033	p-value	0.2333	p-value	0.4000
(10%, 5%, 1% critical values)	(12.3520, 14.6637, 23.3929)	(10%, 5%, 1% critical values)	(12.1175, 14.6296, 20.5993)	(10%, 5%, 1% critical values)	(12.9497, 15.3355, 29.6550)
Lev 2 (TDTA)					
0.3700		0.1400 0.3700		0.0100 0.1400 0.3700	
F_1	16.73**	F_2	12.05*	F_3	6.58
p-value	0.0200	p-value	0.0867	p-value	0.5167
(10%, 5%, 1% critical values)	(11.9714, 13.8540, 19.3211)	(10%, 5%, 1% critical values)	(11.2160, 13.4974, 18.6952)	(10%, 5%, 1% critical values)	(15.4616, 18.9759, 22.9724)
Lev 3 (TCDTA)					
0.0300		0.0100 0.0300		0.0100 0.0300 0.3500	
F_1	15.14**	F_2	10.60	F_3	8.32
p-value	0.0267	p-value	0.1267	p-value	0.2467
(10%, 5%, 1% critical values)	(11.2073, 13.3007, 17.4421)	(10%, 5%, 1% critical values)	(11.9979, 14.7109, 24.2439)	(10%, 5%, 1% critical values)	(12.0504, 14.0088, 16.4177)

Notes: The *F*-statistics and *p*-values are reported in parentheses from repeating bootstrap procedures 300 times for each of the three bootstrap tests. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

The results for Lev 3 (TCDTA) indicate that the estimator of the single, double, and triple-threshold model are 0.0300, 0.0100-0.0300, and 0.0100-0.0300-0.3500, respectively, with 95 percent confidence interval. The *F*-statistic of 15.14 shows significant at the 1 percent level since it is higher than the critical value of 17.4421. Based on the results under the double-threshold and triple-threshold model the double-threshold and triple-threshold model are rejected. Therefore, the following analysis for Lev 3 (TCDTA) focuses on the single-threshold model for the rest of the estimation results.

Table 6.5 summarises the threshold model results for Lev 1 (TDTE), Lev 2 (TDTA), and Lev 3 (TCDTA) where Lev 2 (TDTA) applies the double threshold model, while Lev 1 (TDTE) and Lev 3 (TCDTA) apply the single-threshold model.

Table 6.5: Summary Result of Threshold Models

Category	**Threshold model**		
	Single-threshold	Double-threshold	Third-threshold
Threshold effects between Lev 1 (TDTE) and SGR	Yes	No	No
Threshold effects between Lev 2 (TDTA) and SGR	Yes	Yes	No
Threshold effects between Lev 3 (TCDTA) and SGR	Yes	No	No

6.4.1 Threshold Estimation for Leverage 1 (TDTE)

Table 5 shows the results of the estimated coefficient based on OLS standard errors and White-corrected standard errors.

Table 6.6: Estimated Coefficients: Single-Threshold Model for Lev 1 (TDTE)

Regressors	Coefficients	OLS SE	t_{ols}	White SE	t_{white}
Profitability (NPM)	-0.0106	0.0023	-4.57***	0.0066	-1.61
Company's efficiency (ATS)	0.2302	0.0078	29.33***	0.0232	9.92***
Dividend policy (DPR)	-0.0085	0.0014	-6.17***	0.0022	-3.78***
Firm's size (log TA)	-0.0064	0.0053	-1.22	0.0094	-0.68
$\gamma_1 \leq 1.4200$	0.0234	0.0093	2.52**	0.0166	1.41
$\gamma_2 > 1.4200$	-0.0217	0.0073	-2.97***	0.0222	-0.98

Notes: The standard errors are reported in parentheses (OLS for homoscedasticity and white corrected for heteroscedasticity). ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. SGR = Sustainable growth rate based on Higgins (1977), the calculation is return on equity multiply retention ratio; NPM = Net profit margin (net income to sales); ATS = Assets to Sales; DPR = Dividend payout ratio (dividend per share to earnings per share). γ_1 refers to the first regime, and γ_2 refers to the second regime.

Based on the results, the regression slope estimation in the single threshold model indicates the effect of total debt to total equity in the two regimes, where, in the first regime, when TDTE ≤ 1.4200 (in which TDTE is less than or equal to 1.4200) it shows a positive coefficient of 0.0234, which implies a positive relationship between Lev 1 (TDTE) and SGR, and significant at the 5% level of significance. Further explanation suggests that increasing the total debt to total assets beyond the threshold value of more than 1.4200 (142 percent) implies that the SGR increases by 2.34 percent with an increase of 1 percent in total debt to total equity for firms that have a total debt to total equity of more than 1.4200 (142 percent). The second regime is when TDTE > 1.4200 (TDTE greater than 1.4200), which indicates a negative effect of Total debt to total equity on sustainable growth. The negative coefficient of 0.0217 indicates that sustainable growth is negatively related to total debt to assets and significant at the 1% level of significance. This implies that the SGR increases by 2.17 percent with an increase of 1 percent in total debt to total assets for firms that have a total debt to total equity of more than 1.4200 (142 percent).

Furthermore, the control variable under Lev 1 (TDTE) firms show that the net profit margin is significant at the 1 percent level of significance and positively related

to SGR. This implies that the greater the profitability (NPM) the higher the firm's SGR. The estimated coefficient of the net profit margin is 0.2302. Whereas, company's efficiency (ATS) shows that it negatively influences the SGR, which is significant from the results of both the OLS standard errors and white-corrected standard errors at the 1 percent level of significance. The dividend policy (DPR) shows that it is negatively significant and influences the SGR, which implies that a higher dividend payment would reduce the firm's SGR. Thus, increasing the total debt to total equity beyond the threshold value of more than 142 percent would have a negative impact on the SGR.

6.4.2 Threshold Estimation for Leverage 2 (TDTA)

Table 6.7 shows the results of the estimated coefficient based on the OLS standard errors and White-corrected standard errors.

Based on the results, the regression slope estimation in the single threshold model indicates the effect of total debt to total assets in the two regimes, where, in the first regime, when TDTA ≤ 0.3700 (in which TDTA less than or equal to 0.3700) it shows that a positive coefficient of 0.0609 implies a positive relationship between Lev 2 (TDTA) and SGR. Further explanation, suggests that increasing the total debt to total assets beyond the threshold value of more than 0.37 (37 percent) would decrease the SGR of the firm. The positive coefficient of 0.0609 indicates that sustainable growth is positively related to total debt to assets and is significant at the 5% level of significance. This implies that the SGR increases by 6.09 percent with an increase of 1 percent in total debt to total assets for firms that have a total debt to total assets of less than 0.3700 (37 percent).

Table 6.7: Estimated Coefficients: Single-Threshold Model for Lev 2 (TDTA)

Regressors	Coefficients	OLS SE	t_{ols}	White SE	t_{white}
Profitability (NPM)	-.0114	.0023	-4.85***	.0071	-1.60
Company's efficiency (ATS)	.2314	.0079	29.13***	.0244	9.48***
Dividend policy (DPR)	-.0087	.0014	-6.25***	.0023	-3.84***
Firm's size (log TA)	-.0058	.0053	-1.09	.0097	-0.60
$\gamma_1 \leq 0.3700$	.0609	.0296	2.06**	.0508	1.20
$\gamma_2 > 0.3700$	-.0275	.0279	-0.99	.0523	-0.53

Notes: The standard errors are reported in parentheses (OLS for homoscedasticity and white corrected for heteroscedasticity). ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. SGR = Sustainable growth rate based on Higgins (1977), the calculation is return on equity multiply retention ratio; NPM = Net profit margin (net income to sales); ATS = Assets to Sales; DPR = Dividend payout ratio (dividend per share to earnings per share). γ_1 refers to the first regime, and γ_2 refers to the second regime.

Second, the regime when TDTA > 0.3700 (TDTA greater than 0.3700) indicates the negative effect of Total debt to total assets on sustainable growth but the result is insignificant. Furthermore, the control variable in this research shows that the net profit margin is significant at the 1 percent level of significance and positively related to a SGR. This implies that the greater the profitability (NPM) the higher the firm's SGR. The estimated coefficient of net profit margin is 0.2314. The dividend policy (DPR) and company's efficiency (ATS) show that they negatively influence the SGR, and is significant from the results of both the OLS standard errors and white-corrected standard errors at the 1 percent level of significance. Thus, this study found that when the debt ratio is less than 37 percent, the SGR increased, albeit not significant for a debt ratio of more than 37 percent. This finding is consistent with Abd. Halim Ahmad & Nur Adiana Hiau Abdullah (2013) who suggested that additional debt beyond the threshold level does not add to a firm's value. This study is also in line with Taiwan, Lin & Chang (2009; Lin & Chang (2009); Cuong and Canh (2012).

Table 6.8 shows the results of the estimated coefficients for the double-threshold model.

Table 6.8: Estimated Coefficients: Double-Threshold Model for Lev 2 (TDTA)

Regressors	Coefficients	OLS SE	t_{ols}	White SE	t_{white}
Profitability (NPM)	-.0112	.0023	-4.79***	.0070	-1.59
Company's efficiency (ATS)	.2314	.0079	29.27***	.0241	9.59***
Dividend policy (DPR)	-.0087	.0014	-6.26***	.0022	-3.86***
Firm's size (log TA)	-.0045	.0053	-0.84	.0096	-0.47
$\gamma_1 \leq 0.1400$	.2599	.0762	3.41***	.0872	2.98***
$0.1400 < \gamma_2 \leq 0.3700$	.0960	.0319	3.01***	.0532	1.81*
$\gamma_3 > 0.3700$	-.0021	.0292	-0.07	.0533	-0.04

Notes: The standard errors are reported in parentheses (OLS for homoscedasticity and white corrected for heteroscedasticity). ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. SGR = Sustainable growth rate based on Higgins (1977), the calculation is return on equity multiply retention ratio; NPM = Net profit margin (net income to sales); ATS = Assets to Sales; DPR = Dividend payout ratio (dividend per share to earnings per share). γ_1 refers to the first regime, γ_2 refers to the second regime, and γ_3 refers to the third regime.

Based on the above results, the regression slope estimation of the double threshold model indicated the effect of total debt to total assets in the three regimes, where, in the first regime, when TDTA ≤ 0.1400 (which TDTA less than or equal to 0.1400) shows that a positive coefficient of 0.2599 implies a positive relationship between Lev 2 (TDTA) and SGR. The results are significant at the 1% level of significance. This implies that SGR increases by 25.99 percent with an increase of 1% in total debt to total assets for firms that have a total debt to total assets of less than or equal to 0.1400 (14 percent).

In the second regime, when 0.1400 < TDTA ≤ 0.3700 (TDTA greater than 0.1400 but less than or equal to 0.3700) the positive coefficient of 0.0915 indicates that sustainable growth is positively related to total debt to assets and significant at the 1% level of significance. The third regime is when TDTA > 0.3700 (TDTA greater than 0.3700), which indicates the negative effect of Total debt to total assets on sustainable growth but the result is insignificant. Further explanation suggests that increasing the total debt to total assets beyond the threshold value of more than 0.37 (37 percent) would have no impact on the SGR.

Moreover, the control variable in this research shows that the net profit margin is significant at the 1% level of significance and positively related to the SGR. This implies that the greater the profitability (NPM) the higher the firm's SGR. The estimated coefficient of net profit margin is 0.2314. The company's efficiency (ATS) and dividend policy (DPR) show that it negatively influences the SGR, and is significant for the results of both the OLS standard errors and white-corrected standard errors at the 1% level of significance. Finally, the study found that a financial threshold of not more than 33 percent of Malaysian Shariah-compliant firms is not limited to 33 percent, but that the total debt to total assets can be limited to 37 percent to be sustained in the growth of firms because the calculation of total debt included Islamic debt.

6.4.3 Threshold Estimation for Leverage 3 (TCDTA)

Table 6.9 shows the results of the estimated coefficient based on the OLS standard errors and White-corrected standard errors.

Table 6.9: Estimated Coefficients: Single-Threshold Model for Lev 3 (TCDTA)

Regressors	**Coefficients**	**OLS SE**	t_{ols}	**White SE**	t_{white}
Profitability (NPM)	-0.0115	0.0024	-4.84***	0.0069	-1.65
Company's efficiency (ATS)	0.2275	0.0080	28.46***	0.0243	9.36***
Dividend policy (DPR)	-0.0088	0.0014	-6.23***	0.0022	-3.96***
Firm's size (log TA)	-0.0051	0.054	-0.96	0.0093	-0.55
$\gamma_1 \leq 0.0300$	-2.6866	0.8910	-3.02***	1.0840	-2.48**
$\gamma_2 > 0.0300$	-0.0446	0.0262	-1.70*	0.0434	-1.03

Notes: The standard errors are reported in parentheses (OLS for homoscedasticity and white corrected for heteroscedasticity). ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. SGR = Sustainable growth rate based on Higgins (1977), the calculation is return on equity multiply retention ratio; NPM = Net profit margin (net income to sales); ATS = Assets to Sales; DPR = Dividend payout ratio (dividend per share to earnings per share). γ_1 refers to the first regime, and γ_2 refers to the second regime.

Based on the above results, the regression slope estimation in the single threshold model indicated the effect of total conventional debt to total assets in the two regimes where, in the first regime, when TCDTA ≤ 0.0300 (in which TCDTA is less than or equal to 0.0300) it shows a positive coefficient of -2.6866, which implies a negative relationship between Lev 3 (TCDTA) and SGR; the result is significant. Further explanation suggests that increasing the total conventional debt to total assets beyond the threshold value of less than 0.03 (3 percent) would decrease the SGR. The second regime is when TCDTA > 0.0300 (TCDTA greater than 0.3700), which also indicates the negative effect of Total conventional debt to total assets on SGR. The negative coefficient of 0.0446 indicates that SGR is negatively related to total conventional debt to assets and significant at the 1% level of significance. This implies that SGR increases by 4.46 percent with an increase of 1 percent in total conventional debt to total assets for firms that have a total conventional debt to total assets of more than to 0.0300 (3 percent).

In addition, the control variable in this research shows that the net profit margin is significant at the 1 percent level of significance and is positively related to SGR. The estimated coefficient of net profit margin is 0.2275. This implies that the greater the profitability (NPM) the higher the firm's SGR. The dividend policy (DPR) shows a negative significant influence on SGR at the 1 percent level of significance. Company's efficiency (ATS) shows that it negatively influences SGR, which is significant for the results of both the OLS standard errors and white-corrected standard errors at the 1 percent level of significance. Therefore, the results indicate that being higher or lower than the threshold of 3 percent would decrease a firm's SGR.

6.5 Conclusion

The purpose of this research is to examine the effect of three measurements of capital structure (i.e. Lev 1 (TDTE), Lev 2 (TDTA), and Lev 3 (TCDTA)) on Malaysian Public-listed Shariah firms' sustainable growth and the target debt at which a firm could maximize its growth. Unfortunately, this study cannot find the level of threshold for Lev 4 (IDTA) because of the unavailability of complete data. The motivation is due to the reduced number of Shariah-compliant firms in November 2013 because the companies have a higher level of conventional debt, which is more than the benchmarks given by the Securities Commission Malaysia and compares whether there is also a threshold in total debt to total assets for non Shariah companies. One of the reasons for the reduced number of Shariah-compliant firms is because companies have higher conventional debt where financial ratios are more than the limit or threshold of 33 percent.

Based on the summarization results in Table 6.10, for Lev 1 (TDTDE), the results show that lower than the threshold of 142 percent would increase the SGR but higher than the threshold of 142 percent would tend to decrease the firm's SGR. Thus, increasing total debt to total equity beyond the threshold value of more than 142 percent would have a negative impact on the SGR. The most significant measurements related to the screening methodology benchmarks are for Lev 2 (TDTA). The study found that the financial threshold of Malaysian Shariah compliant firms is not limited to 33 percent total debt to total assets, but to 37 percent to sustain the growth. In order to remain listed as Shariah compliant companies, the choice is to take Shariah based liabilities after hitting 33 percent. For Lev 3 (TCDTA), the calculation only focuses on Conventional debt. The result shows that lower than 3 percent would decrease the SGR and higher than 3 percent also decreases the firm's SGR e. Therefore, the results indicate that

higher or lower than the 3 percent threshold level would decrease the firm's SGR. The results of this study provide new evidence concerning the existence of the threshold Lev 2 (TDTA) of 37 percent for Malaysian Public-listed Shariah-compliant firms. Based on the results, the regression slope estimation indicates the effect of total debt to total assets in the three regimes. The first and second regime imply a positive significance at the 1% level of significance but the third regime is insignificant. Nevertheless, increasing the total debt to total assets beyond the threshold value of more than 0.3700 (37 percent) would have no impact on the SGR. Moreover, the control variable for all the measurements of capital structure in this research consistently show that the net profit margin is positively significant at the 1% level of significance, and company's efficiency (ATS) and dividend policy (DPR) show that it negatively influences the SGR. Thus, the findings suggest that future research on this topic should be oriented towards investigating the effect of the threshold regression model using different finance indicators and different types of institutions' influence on the SGR. In addition, identifying the target debt ratio could help managers to undertake financial planning in an efficient manner.

Table 6.10: Summarisation of the Results of the Threshold Regression Analysis

Category	**Threshold model (Accepted)**	**Results**
Threshold effects between Lev 1 (TDTE) and SGR	Single-threshold	$\gamma1 \leq 1.4200$ = positively significant. $\gamma2 > 1.4200$ = negatively significant.
Threshold effects between Lev 2 (TDTA) and SGR	Single-threshold	$\gamma1 \leq 0.3700$ = positively significant. $\gamma2 > 0.3700$ = not significant.
	Double-threshold	$\gamma1 \leq 0.1400$ = positively significant. $0.1400 < \gamma2 \leq 0.3700$ = positively significant. $\gamma3 > 0.3700$ = not significant.
Threshold effects between Lev 3 (TCDTA) and SGR	Single-threshold	$\gamma1 \leq 0.0300$ = negatively significant. $\gamma2 > 0.0300$ = negatively significant.