

# The Effect of Leverage on Performance of *Shari'ah* and Non-*Shari'ah* Companies in Malaysia Using Partial Least Squares

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## Abstract

This study focus on the effect of *shari'ah* and non-*shari'ah* compliant companies on the relationship between leverage and performance listed on Bursa Malaysia. Based on the existing literature, a conceptual model was developed to test the relationships between the variables under investigation. Data from 916 companies were used for the year 2009 using the SEM-PLS in testing the research hypotheses. The results showed that leverage has a significant negative relationship with performance (ROA) but has no significant relationship with other performance indicators which is ROE. However the existent of TYPE (*shari'ah* and non-*shari'ah* compliant companies) as a moderator influence the negative relationship between leverage and performance for both indicators ROA and ROES used in this study. The result reveals that variance of the relationship towards ROA improve from 26.5% to 27.6% same goes to variance in ROE where  $R^2$  increases from 15% to 21.8%. This study found that most of the Malaysian listed companies performed better in a low leverage situation but not during high leverage situation, especially for *shari'ah* compliant companies. It was recommended that the policy makers of the firm should not underestimate the effect of leverage on performance in strategic business decisions.

**Keywords:** Leverage, Return-on-asset, Size, Liquidity, Market risk, Market-to-book ratio.

## Introduction

Competitive nature of the business environment demands that companies should strive for higher performance not only to outperform competitors but also to satisfy the requirements of stakeholders. Hence, companies mobilize resources in order to achieve a high level of performance which would eventually ensure their continuous existence in the market as well as satisfying the stakeholders. While high performance is the target of the companies, the concept,

however, remains multidimensional with several indicators. Thus, a number of indicators are usually employed to measure performance. For instance, performance could be measured in terms of maximizing profit on assets, profit maximization, maximizing shareholders' benefits, growth in sales and growth in market share (Hofer & Sandberg, 1987). Furthermore, it is argued that firms' performance is associated with the leverage in the capital structure. Hence, several theories have been advanced to explain the relationship between capital structure and firm performance. Capital structure is a combination of debt, preferred stock and common stock which the companies employed to finance their investment. Although striking an optimal mix of capital structure is continuously becoming an issue of debate among the scholars and practitioners as well, companies try to decide on the right mix of debt and equity in order to maximize the wealth of shareholders.

In Malaysia, the existent of *Shari'ah* and non-*Shari'ah* compliant companies listed in Bursa Malaysia created a competitive market among the companies and influence the investors' investment decision-making. Kamso (2008) claimed that *Shari'ah* compliant companies' performance similar to non-*Shari'ah* compliant companies in the long run although *Shari'ah* compliant companies are bound with *Shari'ah* principles since they are less leverage in their capital management. Therefore, this study will investigate the effect of leverage on the performance of *Shari'ah* and non-*Shari'ah* compliant companies listed on Bursa Malaysia.

## **Problem Statement**

The capital structure of a firm has been the subject of debate among researchers since the seminal publication by Modigliani and Miller's (1958, 1963). Their initial findings of the irrelevance of capital structure and the subsequent optimal capital structure triggered an intensive research. Thus, several extensions have been made to the theory in different research such as Robichek and Myers (1965), Jensen and Meckling (1976), Ross (1977), Leland and Pyle (1977) and Myers (1977). For example, Trade-off theories of corporate financing are developed based on the concept of target capital structure that balances various costs and benefits of debt and equity. These include the tax benefits of debt and the costs of financial distress Modigliani and Miller, (1963), various agency costs of debt and equity financing (e.g., Jensen & Meckling, 1976; Myers, 1977; Stulz, 1990; Hart & Moore, 1995), and the costs and benefits of signaling with capital structure (Ross, 1977).

In Malaysia, continuous studies on the capital structure and performance have been seriously done especially when the economic crisis occurred and affect the Malaysian companies' performance. One of the key factors accelerating the economic crisis 1997 in this country is the high dependency on debt financing by Malaysian companies (Suto, 2003). Debt financing is popular method used by Malaysian companies to get sources of fund rather than equity financing because of easy debt financing facilities provided by the government with various loan

schemes at a low interest rate to help the companies to generate their investment capital in business such as SME Financing Fund, SME soft loans from Malaysian Industrial Development Finance (MIDF), Business Accelerator Programme and the Enrichment and Enhancement Programme, TEKUN and Microenterprises or Microcredit (Bernama, 2012).

This uncontrollable borrowing activity implemented by the companies, in the long run, will increase the level of debt in the companies and will lead to financial distress in the future if they keep relying on excessive borrowing (Rahman, Yahya, & Nasir, 2010). In the past there are some scholars argued that the use of debt can improve the efficiency and effectiveness of the company for example the trade-off theory developed by Modigliani and Miller's (1963) which they found that in imperfect market with existence of corporate taxes the company are suggested to use as much debt capital as possible in order to maximize their value by using the interest tax benefit as tax-deductible expenditure (Ahmad, 2009). Tax-deductible expenditure will reduce the payment of company tax to the government and at the same time maximize the firm value. However Hiwt & Smart (1994) claimed that the reduction of performance was mainly because of extraordinary debt. The trade-off theory as mentioned above has been argued by other researchers who claimed that corporate financing practice does not only based on the trade-off theory of debt. Myers (1984) clarified that in the world of information asymmetry, corporate managers tend to use internal financing as the main sources for firm growth opportunities follow by debt financing and lastly the equity to cover any remaining (Ahmad, 2009). In other words, Pecking order theory introduced by Myer and Majluf (1984) identify the hierarchy of financing in generating fund for the company in the world of information asymmetry.

Therefore this research will study the strength and performance of the public listed companies in Bursa Malaysia for the year 2009 by analyzing the direct effect of leverage on the performance and examining the effect of *Shari'ah* and non-*Shari'ah* compliant companies on the relationship between leverage and performance of public listed companies of Bursa Malaysia besides identifying the theory behind the efficient mixture of capital structure and the strategies the company took to lower the weighted cost of capital to ensure an increase of net economic return which eventually will increase the firm performance and value.

The objective of the study is to analyze the effect of leverage (proxy by Debt Ratio) on performance (proxy by Return on Assets and Return on Equity) of Malaysia listed companies.

## **Literature Review**

### **The Effect of Capital Structure Theories on Performance**

The relationship between the leverage and the performance of firms has become prominent in the late 1980s and early 1990s as the global competitiveness of U.S. firms has declined (Hill, Hitt,

& Hoskisson, 1988; Porter, 1992). Similarly, there are a number of researchers which suggest that leverage has a non-neutral impact on firms' performance, irrespective of whether or not arbitrage is possible (Majumdar & Chhibber, 1999). As a result, there are contradicting and divergent theories that provide an explanation on the most appropriate policy for management (Simerly & Li, 2000). The three famous capital structure theories are the Tradeoff Theory, Pecking Order Theory and Agency Theory. Each theory, together with their past empirical findings, were developed by the pioneered of corporate finance researchers such as Modigliani and Miller (1958) with the MM theory, Jensen and Meckling (1976) create the Agency Theory and Myers and Majluf (1984) introduced the Pecking Order Theory. The theory and model they developed were used as the basic explanations and references for the corporate finance researchers until now especially on the capital structure development.

Modigliani and Miller's suggestion, firms should use as much as debt possible in their capital structure in order to maximize their value in order to attain the tax shield advantages to reduce the tax payment when the companies have high debt. The tax advantages of debt occur when the interest payment of debt made reduced the taxable income of the company. Modigliani and Miller's theory has been discussed by other finance researchers. This is due to bankruptcy costs effect when companies have a lot of debt in their capital structure. The pecking order theory is a leading contribution in capital structure and amongst the most influential theories of corporate leverage (Yau, Lau and Liwan, 2008). The Pecking Order Theory or Pecking Order Model was developed by Stewart C. Myers and Nicolas Majluf in 1984. This theory describes a hierarchy of financial sources or fund available for the companies which include retained earnings, debt and equity. The theory states that companies choose their sources of financing (from internal financing to equity) according to the law of least effort; companies used internal funds first such as retained earnings, followed by the debt and last financing solution will be the equity to fund new projects or new investments.

Yau et al. (2008) done a study on 100 blue chip securities listed on Bursa Malaysia from the year 1999 until 2005 found that long-term debt was negatively correlated with external financial (equity). This means that most of the Malaysian companies prefer to use internal fund and debt as the main source for funding their investment activities especially after suffering from 97's economic crisis. Khairunisah, Fauzias and Izani (2006) survey also clarified the same result when 65.4% of 790 Chief Financial Officers (CFOs) of non-finance Malaysian Public Listed companies respond that they follow a financing hierarchy which is the pecking order theory in the company capital structure policy and their finding strengthen our finding when SCC also implement pecking order theory as capital structure policy of the company. Therefore this study will analyze the capital structure theories particularly the trade-off theory and the pecking order theory, able to explain the capital structure of the Malaysian listed companies.

## **Capital Structure and Performance**

Capobianco and Fernandes (2004) defined the capital structure as a strategic decision involved in choosing between debt holders and shareholders capital. Capital structure decision is important as it involves the possible changes to capital cost and its risk. In other words, the choice of the capital structure becomes an important element in determining the value of the companies. Leverage ratio mostly used by past researchers as indicators of firm capital structure (Paydar, 2012). Debt ratio (total debt to total assets) and Debt Capitalization ratio (total debt to market capitalization) is the most popular indicators use in explaining leverage and performance. There were several arguments discussed by the researchers in selecting the best ratio to be used between the two ratios; Debt ratio and Debt Capitalization ratio.

Khatkhatay & Nisar (2008) claimed that debt ratio would be more rational compared to the debt capitalization ratio because it measures the business operation activities being financed by noncompliant debt component. Ling (2009) clarified that leverage ratio (debt ratio) and return on assets (ROA) found to be an important predictor of financially distressed company, the higher the debt the higher the probability of the companies classified under financial distressed company when the return is negative because defaulting on debt contract would likely be elevated if there is sudden downturn of income in the company.

However, Zuraida (2009) performed an empirical study on the impact of capital structure on operating performance of 240 companies in Malaysia in the year 2002-2007 and found that ROA had significant positive relationship with capital structure proxies by debt ratio (DR) and short-term debt ratio consistent with Philips and Sipahioglu (2004) and Grossman and Hart (1986) findings. She concludes that the higher the level of debt in the company capital structure, the higher the company performance. She also stated that the high-performance level might occur because the management mostly uses long-term debt decision to increase the company return.

Another proxy of capital structure and performance is debt ratio (DR) and return on equity (ROE). Ahmad et al (2012) stated that ROE as an indicator for performance was very sensitive to certain type of capital structure ratio especially on long-term debt compared to ROA because earning power of the company assets is less than the average interest cost of debt to the firm. But based on a cross-sectional study by Chin (1997) over 267 companies listed on Bursa Malaysia from the year 1985-1994 found that capital structure proxy by debt ratio (DR) have significant negative relationship with performance proxy by ROE.

## **The Effect of Syariah and Non-Syariah Compliant on Malaysian Listed Companies**

Islamic Finance established by Middle East countries in the 1960s when first Islamic bank was established in Egypt (Pok, 2012) and become significantly popular in 1975 when Islamic Development Bank was formed to promote *Shari'ah* compliant financial practices. The western

countries found that Islamic finance as a system that can attract many Islamic investors and they adopt Islamic practices in their banking and tax law framework (Pok, 2012). Malaysia, as a Muslim country, also took the opportunities to developed *Shari'ah* compliant companies (SCC) in 1996 to fulfill the strong demand of faithful Muslims investors for Islamic investment equity especially the investors from the Muslim oil-rich countries in the Middle East (El Qorchi, 2005).

The existence of SCC product in equity market has increased Islamic finance Industries with double-digit growth and made SCC growth similar to non-SCC performance in the long run especially in Malaysia (Kamsu, 2008). Nevertheless, the SCC also faced some negative perception from non-Muslim investors from the west who claimed SCC poorly performed, low liquidity and popular among Muslim investors only (Ismail, 2010). Based on the study done by Pok (2012) on 477 SCC in Malaysia in 2010 using Altman (1968) Z score and Altman (2002) double prime Z score found that between 62% and 80% of SCC seen to be financially strong and clear from financial distressed problem although the level of debt financing is quite high compared to other SCC which screen under Dow Jones Islamic Index (DJIM) and S&P *Shari'ah* Index (S&P). Non-SCC companies in Malaysia are free from *Shari'ah* screening process by *Shari'ah* Advisory Board of Securities Commission to be listed on Bursa Malaysia. They are allowed to generate income from any legal sources including the non-*halal* business transaction including liquor, pork, gambling, conventional interest such as bonds, options, futures, forwards and swaps and etc (Hassan, Shafi, & Mohamed, 2012).

This gave non-SCC the opportunities to generate maximum income compared to SCC. Based on the literature review stated above, there is a probability that SCC and Non-SCC moderate the relationship between leverage and performance of Malaysian public listed company.

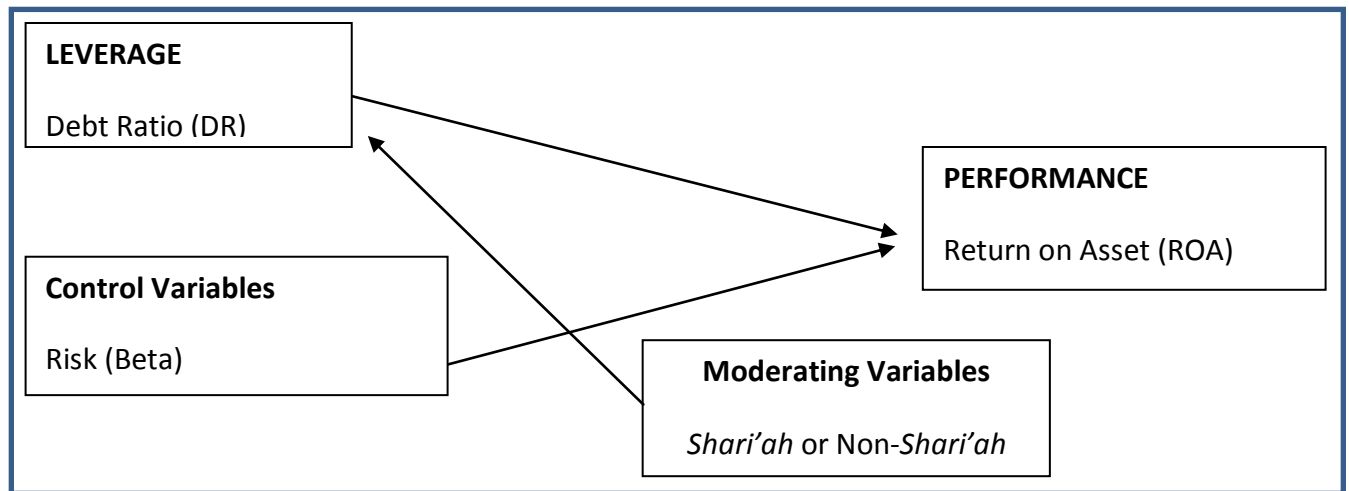
### **Determinants of Capital Structure as Control Variables.**

The existent of SCC and Non-SCC in the Bursa Malaysia listed companies had opened a strong competitive environment to Malaysian global market. Each of them has their own strengths and weaknesses not only in the business transaction but also in capital structure (debt-equity) choice in managing the company financial performance. Other factors such as risk, liquidity, size and growth influence the capital structure decision. Past researchers such as Huang & Song (2006), Ozkan (2001), Lin & Hung (2012) and Rozali & Hamzah, (2006) used market risk, liquidity, size and growth as control variables. Control variables held constant and unchanged to test the relative impact of leverage when running the empirical testing. Size has consistently found to have a positive relationship with leverage. Thus, there is a need to control for this variable. (Deesomsak et al., 2004 and Huang & Song, 2006). Growth is another control variable used in this study because it influences the relationship between capital structure and performance. Myers (1977) observes that the amount of debt issued by a firm is negatively associated with the growth opportunities because high-growth firms require more equity financing compared to a low

growth company. Market risk is vulnerable to events which affect aggregate outcomes like broad market returns and total economy. Beta as a proxy of market risk define the degree to which an asset's expected return is correlated with broader market outcomes; it is simply an indicator of an asset's vulnerability to systematic risk (Maginn, Tuttle, McLeavey, & Pinto, 2007). The existent of control variables will mitigate the causal problem in SEM-PLS (Krafft, Qu, & Quatraro, 2013) and produces robustness of the findings in this study.

### The Conceptual Framework of the Study

Based on the past literature, the following conceptual framework was developed below:



**Figure 1: Conceptual Model of the Study**

### Statement of Hypothesis

Based on the relationships among the variables explained in the conceptual model above, the following hypotheses were formulated:

- H<sub>1a</sub>: DR has a negative relationship with ROA.
- H<sub>1b</sub>: DR has a negative relationship with ROES.
- H<sub>2a</sub>: The negative relationship between DR and ROA would be stronger for *Shari'ah* compliant companies compared to non-*Shari'ah* compliant companies.
- H<sub>2b</sub>: The negative relationship between DR and ROES would be stronger for *Shari'ah* compliant companies compared to non-*Shari'ah* compliant companies.
- H<sub>3</sub>: The Malaysian companies' do practices the Pecking order Theory when leverage have

negative relationship with performance.

## Methodology

The population of the study consists of the all the firms that are listed on the main board of Bursa Malaysia as at November 2009. After data screening and removal of companies with substantial missing data, a total of 916 firms were used for the analysis. A Structural Equation Model (SEM) using (Partial Least Square (PLS) was conducted in order to ascertain the relationships between the variables under investigation. The model is in a formative form. The first stage is to examine the main effect of the direct relationship between leverage and performance in PLS path model to estimate the latent variable score. The standardized latent variable score is calculated for analysis. The second stage is to test the interaction term between leverage and moderator which is the *Shari'ah* and the non-*Shari'ah* compliant companies as the element-wise product of the latent variables score. Both leverage and the moderator are independent variables in a PLS regression on the latent variable score of performance. All the measurements of variables are summarizing in Table 1 below.

**Table 1: Measurement of Variables**

Variables			Measurement	Symbols
<b>Dependent Variables</b>	Return on Assets		Net profit over total Assets	ROA
	Return on Equity		Net Profit over Total Equity	ROE
<b>Independent Variables</b>	Leverage		Total Debt over Total Asset	DR
<b>Moderator Variable</b>	Type of Company		Dummy 1: <i>Shari'ah</i> Compliant Company, Dummy 0: Non- <i>Shari'ah</i> Compliant Company	TYPE
<b>Control Variables</b>	Market Risk		Degree to which an asset's expected return is correlated with broader market outcomes (BETA)	BETA
	Size of the firm		Log Market Capitalization	LOGSIZE
	Market to book value		Current closing price of the stock by the latest quarter's book value per share	MTBV

Esearch & Cenfetelli (2009) suggest that before conducting the on, assumptions for multivariate analysis was checked. For instance, outlier's cases were checked through Mahalanobis distance. The test for normality was conducted using box plot in SPSS. The variables that were found to be non-normal variables were transformed using Log10 as suggested by Tabachnick and Fidell (2007).The test of multicollinearity among the variables was done for formative construct. Based



on the study done by Bollen (1989) indicators in a formative construct were not applicable to test reliability and convergent validity, however, the multicollinearity was checked through the variance inflation factor (VIF) with values not more than 3.3 as suggested by Peter, Straub and Rai (2007). Therefore the acceptance standard values described in Table 2 proved that there is no problem of multicollinearity and this will increase the level of credibility of the study.

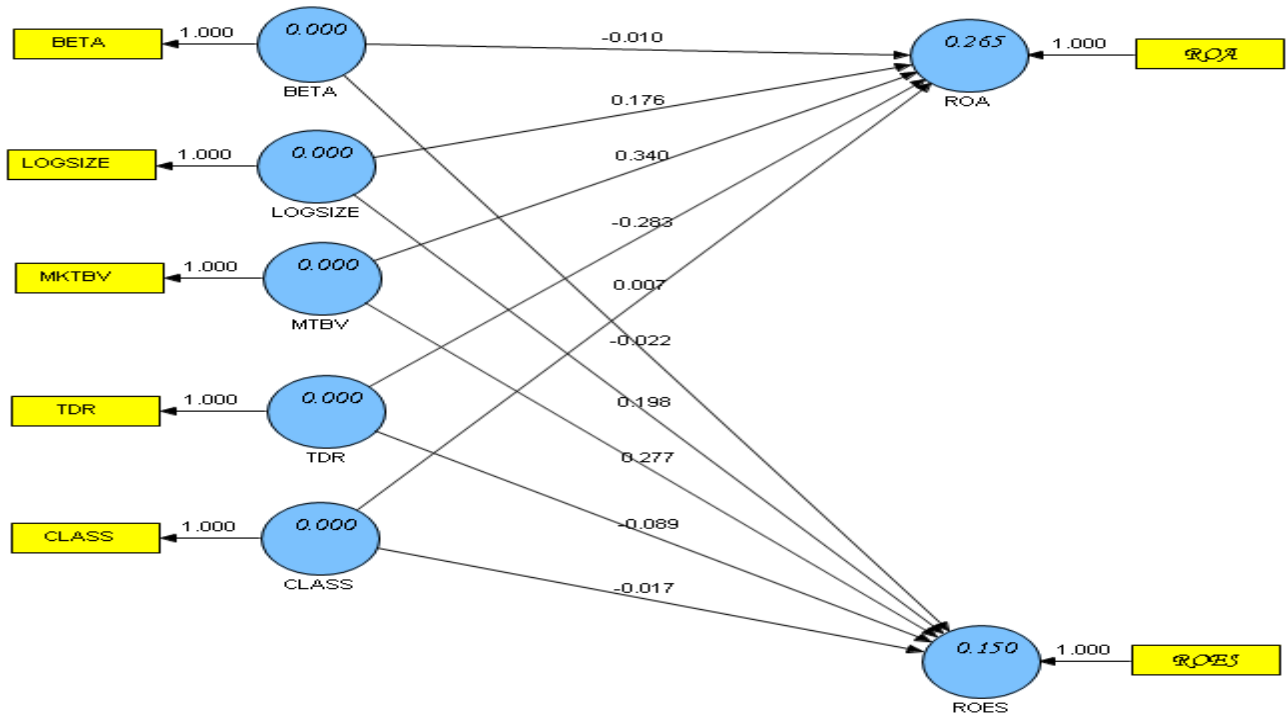
**Table 2: The Mean, Standard Deviation (Std Dev) and Variance Inflation Factor (VIF) of All Constructs**

<b>Relationship</b>	<b>Mean</b>	<b>Std Dev</b>	<b>VIF</b>
BETA -> ROA	-0.010	0.034	1.011
LOGSIZE -> ROA	0.176	0.037	1.042
MKTBV -> ROA	0.340	0.050	1.170
TDR -> ROA	-0.283	0.053	1.171
TYPE -> ROA	0.007	0.029	1.023
BETA -> ROES	-0.022	0.033	1.011
LOGSIZE -> ROES	0.198	0.045	1.042
MKTBV -> ROES	0.277	0.051	1.170
TDR -> ROES	-0.089	0.112	1.171
TYPE -> ROES	-0.017	0.030	1.023

**Table 3: Descriptive Statistics**

	<b>Observation</b>	<b>Minimum</b>	<b>Maximum</b>
ROA	916	-70.920	50.520
ROES	916	-149.460	149.080
TDR	916	.000	973.240
TYPE	916	.000	1.000
MKTBV	916	-6.700	26.200
BETA	916	-2.500	12.860
LOGSIZE	916	1.114	8.525

From Table 3, the total observation is 916 of Malaysian listed companies for the year 2010 with the minimum and maximum value of each exogenous, control variables and endogenous variable.



**Figure 2: Result of the Structural Model 1: Between Exogenous (Leverage), Control Variables (Beta, Size and Market to Book Value) and Moderators TYPE (Sha’riah and Non-Shari’ah Compliance Companies)) and Endogenous Performance (ROA and ROE)**

**Table 4: Structural Model Analysis between Exogenous (Leverage), Endogenous (ROA and ROE) and Moderators (*Shari'ah* and Non-*Shari'ah* Compliance Companies)**

Dependent Variables	ROA						ROE					
	STRUCTURAL MODEL 1a			STRUCTURAL MODEL 2a			STRUCTURAL MODEL 1b			STRUCTURAL MODEL 2b		
	Std Beta	Std Error	T-Value	Std Beta	Std Error	T-Value	Std Beta	Std Error	T-Value	Std Beta	Std Error	T-Value
<b>Independent Variables</b>												
<b>TDR</b>	-0.283	0.053	5.304***	-0.225	0.076	2.950**	-0.089	0.112	0.795	0.054	0.130	0.414
<b>Moderator variables</b>												
<b>TYPE</b>	0.007	0.029	0.231	0.068	0.043	1.582	-0.017	0.030	0.571	0.134	0.049	2.734**
<b>Control Variables</b>												
<b>BETA</b>	-0.010	0.034	0.299	-0.004	0.035	0.108	-0.022	0.033	0.687	-0.007	0.033	0.204
<b>LOGSIZE</b>	0.176	0.037	4.686***	0.204	0.033	6.086***	0.198	0.045	4.345***	0.267	0.030	8.979***
<b>MKTBV</b>	0.340	0.050	6.803***	0.333	0.047	7.107***	0.277	0.051	5.393***	0.260	0.046	5.607***
<b>Interaction Terms</b>												
<b>TYPE * TDR</b>				-0.133	0.067	1.991*				-0.329	0.122	2.700**
<b>R Square</b>			26.5%			27.6%			15%			21.8%
<b>R Square Change</b>						1.2%						6.8%
<b>f<sup>2</sup></b>						0.166						0.787

\*\*\*p<0.001,

\*\*p<0.01,

\*p<0.0

## Findings

### Structural Model Analysis Result of Direct Effect

Table 4 explained analyzing the structural model 1a from the PLS output shows the direct relationship between leverage (DR) ( $\beta = -0.283$ ,  $p < 0.001$ ) and performance (ROA) were negatively significant after controlling for the influence of BETA ( $\beta = -0.010$ ,  $p > 0.05$ ) which is not significant, Size (LOGSIZE) ( $\beta = 0.176$ ,  $p < 0.001$ ) and growth (MTBV) ( $\beta = 0.340$ ,  $p < 0.001$ ) where both of the variables were positively significant with ROA except the moderating variables TYPE ( $\beta = 0.007$ ,  $p > 0.05$ ) which did not significant, with the variation in ROA explained by 26.5% indicated as  $R^2$ . The result clarified that leverage (DR) the independent variable have a strong significant negative relationship with ROA. The result provides sufficient evidence to support hypothesis H1a. However the structural model 1b show the direct relationship between leverage (DR) ( $\beta = 0.054$ ,  $p > 0.05$ ) and performance (ROE) were not significant after controlling for the influence of Market Risk (BETA) ( $\beta = -0.007$ ,  $p > 0.05$ ) is not significant, Size (LOGSIZE) ( $\beta = 0.267$ ,  $p < 0.001$ ), Growth (MTBV) ( $\beta = 0.260$ ,  $p < 0.001$ ) and moderating variables *Shari'ah* and Non-*Shari'ah* Compliant Companies (TYPE) ( $\beta = 0.134$ ,  $p > 0.01$ ) show a significant positive relationship to performance (ROE) with the variation in ROE or  $R^2$  explaining by 15%. Model 1b clarified hypothesis H1b is not supported when leverage (DR) have no significant relationship with ROE.

**Table 5: Summary of the Finding Leverage and Performance**

Hypothesis	Relationship	Decision
H1a	TDR -> ROA	Significant
H1b	TDR -> ROE	Not Significant

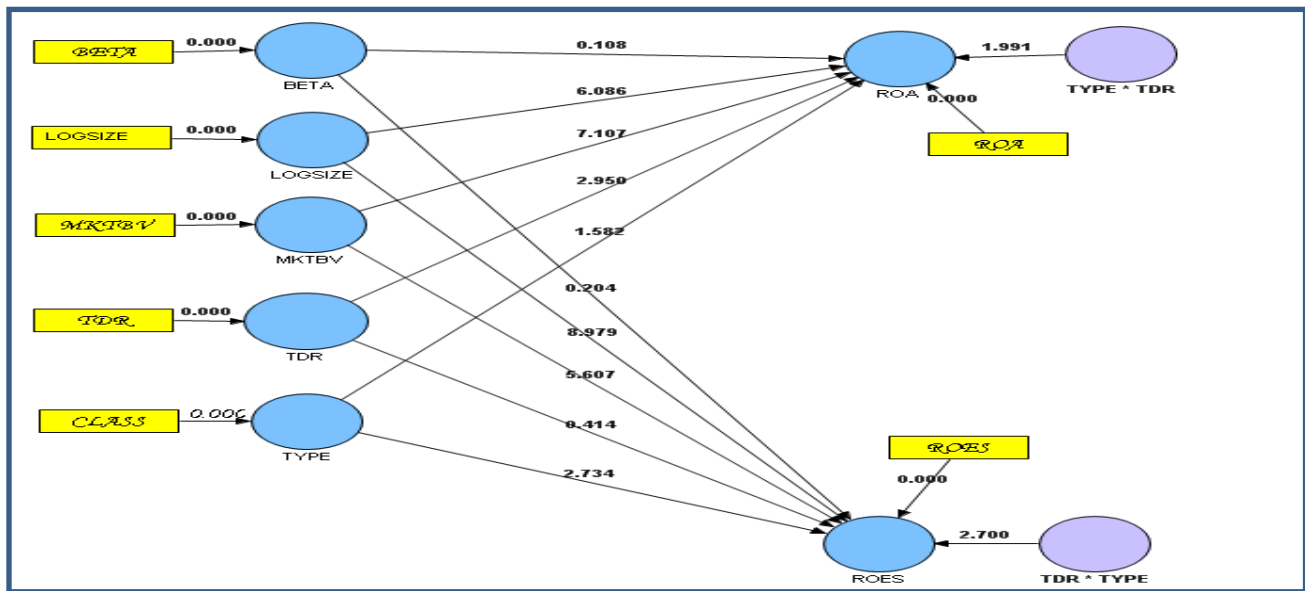


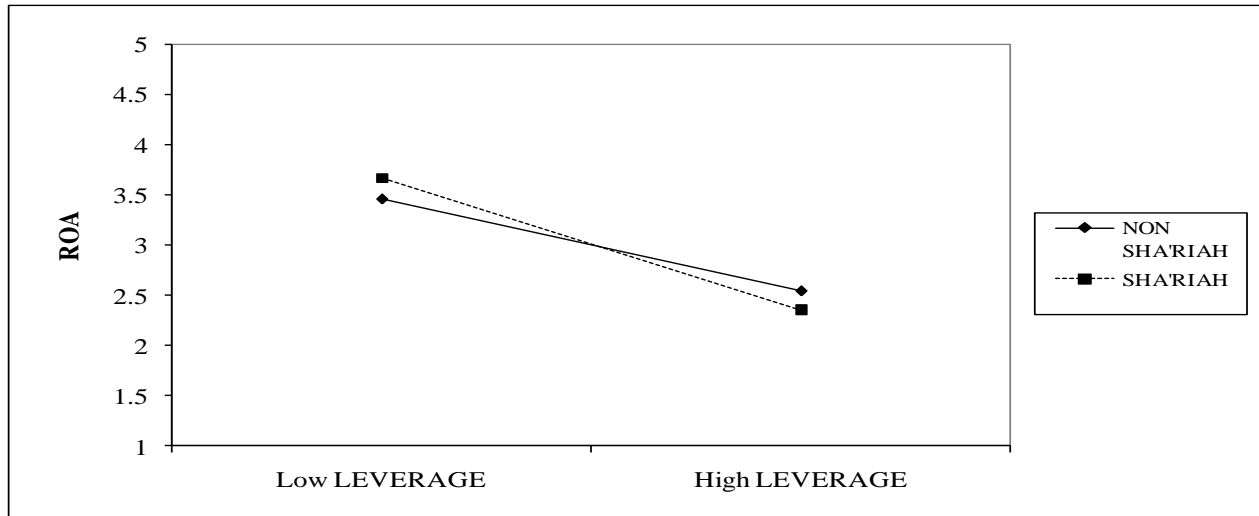
Figure 3: Result of the Structural Model 2: Between Exogenous (Leverage), Control Variables (Beta, Size and Market to Book Value), Moderators (*Shari’ah* and Non-*Shari’ah* Compliance Companies) and Endogenous Performance (ROA and ROE)

### Structural Model Analysis Result of Moderated Effect

A further analysis was done to analyze the effect of moderator *Shari’ah* and Non-*Shari’ah* Compliant Companies (TYPE) on the relationship between Exogenous (Debt Ratio) and Endogenous (ROA) in Structural Model 2a in Table 4 and Figure 2. The result showed that the interaction term of *Shari’ah* and Non-*Shari’ah* Compliant Companies and Leverage (TYPE\*DR) ( $\beta = -0.133$ ,  $p < 0.05$ ) have a significant negative relationship with performance (ROA) where the variance  $R^2$  improves to 27.6% with  $R^2$  change increased to 1.2%. The result shows that the existence of *Shari’ah* and Non-*Shari’ah* Compliant Companies (TYPE) significantly moderates the relationship between leverage (DR) and firm performance (ROA) of Malaysian Companies. Therefore H2a is supported.

Structural Model 2b in Table 4 and Figure 2 analyze the effect of moderator *Shari’ah* and Non-*Shari’ah* Compliant Companies (TYPE) on the relationship between Exogenous (Debt Ratio) and Endogenous (ROE). The result showed that the interaction term of *Shari’ah* and Non-*Shari’ah* Compliant Companies and Leverage (TYPE\*DR) ( $\beta = -0.329$ ,  $p < 0.01$ ) have a significant negative relationship with performance (ROE) where the variance  $R^2$  improves from 15% to 21.8% at  $R^2$  change improved to 6.8%. The result shows that the existence of *Shari’ah* and Non-*Shari’ah* Compliant Companies (TYPE) significantly moderates the relationship between leverage (DR) and firm performance (ROE) of Malaysian Companies.

The hypothesis H2b is supported in this study. In order to understand the effect of *Shari’ah* and Non- *Shari’ah* Compliant Companies on the relationship between Leverage and Performance a Line Graph were plot in Figure 3 and 4.

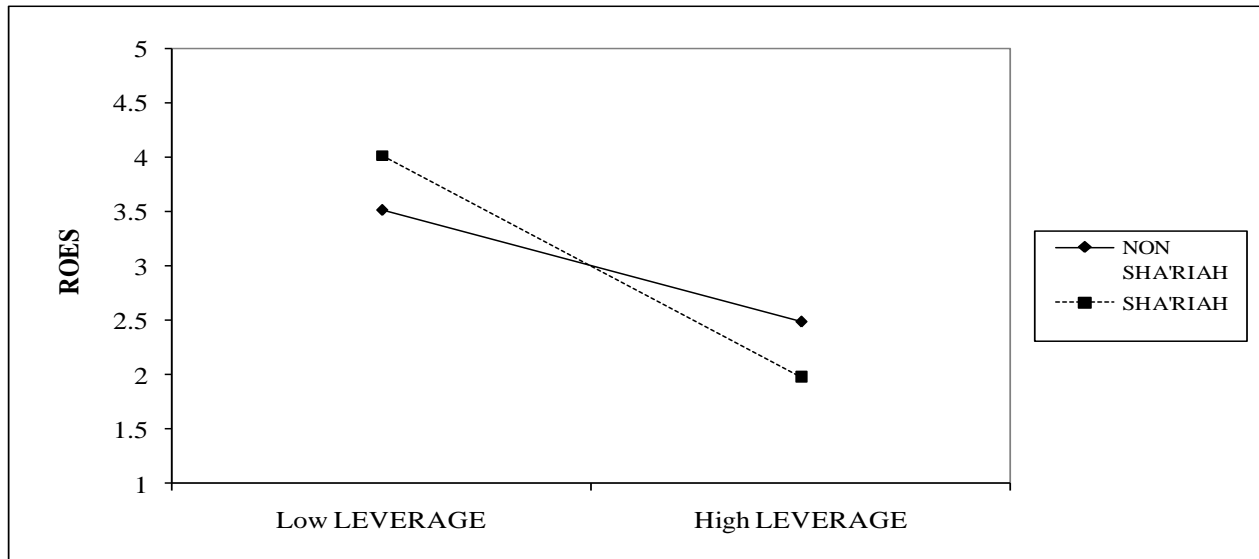


**Figure 4: Moderating Effect of Shari’ah and Non-Shari’ah Compliant Companies on the Relationship between Leverage (DR) and Performance (ROA)**

The graph above shows that *Shari’ah* and non- *Shari’ah* compliant companies have a negative relationship between leverage proxy by TDR and performance proxy by ROA. The *Shari’ah* and non-*Shari’ah* compliant companies will achieve a high performance when the level of leverage becomes lower. However, the *Shari’ah* compliant companies showed a strong negative relationship between leverage and performance compared to non-*Shari’ah* companies. This finding supports hypothesis H2a in Table 6. The study indicates that the negative relationship between DR and ROA would be stronger for *Shari’ah* compliant companies compare to noncompliant companies.

**Table 6: Summary of the Finding between Moderator and Performance (ROA)**

Hypothesis	Relationship	Decision
H2a	TDR * TYPE -> ROA	Significant



**Figure 5: Moderating Effect of *Shari’ah* and Non-*Shari’ah* Compliant Companies on the Relationship between Leverage (DR) and Performance (ROES)**

The second graph above shows that *Shari’ah* and non-*Shari’ah* compliant companies have a negative relationship between leverage proxy by TDR and performance proxy by ROES. The *Shari’ah* and non-*Shari’ah* compliant companies will achieve a high performance when the level of leverage becomes lower. The *Shari’ah* compliant companies showed a strong negative relationship between leverage and performance. This finding supports hypotheses H2b in Table 7. The study indicates that the negative relationship between DR and ROES would be stronger for *Shari’ah* compliant companies compared to non-compliant companies. Therefore it can be concluded that *Shari’ah* compliant company performed better in a low leverage situation and show a weak performance when the leverage is high compared to non- *Shari’ah* compliant companies.

**Table 7: Summary of the Finding between Moderator and Performance (ROE)**

Hypothesis	Relationship	Decision
H2b	TDR * TYPE -> ROE	Significant

Based on the final empirical evidence mentioned above, it can be concluded that capital structure or leverage have a significant negative relationship with performance which consistent with the pecking order theory developed by Stewart C. Myers and Nicolas Majluf in 1984. Therefore hypothesis H3 accepted (refer Table 8). This finding is in line with Yau et al. (2008), and Huson & Nazul (2009) studied which clarified that pecking order theory but not the tradeoff theory in defining the choice of capital structure decision style. Khairunisah et. al. (2006) survey also clarified the same result when 65.4% of 790 Chief Financial Officers (CFOs) of non-finance

Malaysian Public Listed companies respond that they follow a financing hierarchy which is the pecking order theory in the company capital structure policy and their finding strengthen our finding when SCC also implement pecking order theory as capital structure policy of the company.

**Table 8: Summary of the Finding between Moderator and Performance (ROA)**

Hypothesis	Relationship	Decision
H3	The Malaysian companies' do practices the Pecking order Theory when leverage have negative relationship with performance	Significant

### Discussion of Findings

The relationship between leverage and financial performance is negative. The implication of this study indicated that the higher the leverage will affect the company performance. This finding is in line with those of Shyam-Sunder and Myers (1999); Yau, Lau and Liwan (2008); and, Khairunisah, Fauzias and Izani (2006) which are all consistent with the pecking order theory, not the trade-off theory. The negative result is perhaps related to the fact that most of the sampled firms are *Shari'ah* compliant companies which have a maximum limit of leverage in line with *Shari'ah* provisions. Similarly, the investments in such companies are financed internally rather than using external borrowed funds.

**Table 9: Summary of All the Hypotheses**

Hypothesis	Description	Result
H1a	DR has a negative relationship with ROA	Supported
H1b	DR has a negative relationship with ROES	Not Supported
H2a	The negative relationship between DR and ROA would be stronger For <i>Shari'ah</i> compliant companies compare to non- <i>Shari'ah</i> compliant companies.	Supported
H2b	The negative relationship between DR and ROES would be stronger for <i>Shari'ah</i> compliant companies compare to non- <i>Shari'ah</i> compliant companies	Supported
H3	The Malaysian companies' do practices the Pecking order Theory when leverage have negative relationship with performance	Supported

Hypothesis H2a and H2b clarified that *Shari'ah* and non-*Shari'ah* compliant companies have a



significant effect on the relationship between leverage (DR) and performance (ROA and ROE). Hence, when a company needs for financing capital, it should look for equity capital first and then consider debt only for the insufficient part. Findings of this research confirm that the more highly levered firm would face a low level of financial performance. Therefore managers should never underrate the importance of formulating business strategy. The negative relationship between leverage and performance is consistent with a number of previous literature such as Zuraida (2009); Philips and Sipahioglu (2004) and Grossman and Hart (1986). We recommended that the policymakers should minimize their leverage ratio within the limit allowed by the rules and regulation.

Given the conflicting views of researchers regarding the nature of the relationship between leverage on performance, this study takes a stand based on the empirical evidence. The outcome of this study confirmed that the leverage is inversely related to performance, and, this is consistent with the Pecking order theory. Furthermore, this finding corroborates those of Shyam-Sunder and Myers (1999) who were the pioneer in introducing the Pecking Order Theory in management finance research.

### **Limitations and Directions for Future Research**

This study, just as other studies, has faced with certain constraints, and, therefore, the findings should be adopted with caution. For instance, due to the large sample, a cross-sectional data was used for the study instead of longitudinal. Given the nature of variables investigated in this research such as leverage and performance, changes in economic condition over time could affect them. Therefore, it is hereby recommended that future research should focus on the use of longitudinal data as this would reveal all the possible changes that economic condition can cause over time.

### **Conclusion**

Based on the extant literature review, a conceptual model was developed and subsequently tested using secondary data of listed companies on Bursa Malaysia. Consequently, the following conclusions were drawn: First, leverage has a significant negative effect on the performance (ROA) but not ROE. However, the overall empirical result clarified the *Shari'ah* compliant companies showed a strong negative effect on the relationship between leverage and both performance indicator (ROA and ROE) compared to non-*Shari'ah* compliant companies. Finally, it can be concluded that most of the Malaysian companies prefer to follow the pecking order theory rather than trade-off theory as the choice of capital structure decision style because they believe that the low leverage will increase the company performance in the long run.

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