CHAPTER 2

LITERATURE REVIEW, RESEARCH FRAMEWORK, AND HYPOTHESES DEVELOPMENT

2.1 Introduction

This chapter reviews the literature and discusses the research framework and hypotheses development related to sustainable growth rate (SGR). There are three issues to consider, firstly (1), the existence of target capital structure and target dividend policy; secondly (2), the factors that influence SGR and SPP; the effect of SGR on SPP, and, thirdly (3), threshold analysis. This chapter starts by reviewing the SGR model and the importance of ascertaining SGR for firms. Then, reviews the factors that influence SGR and SPP, which are capital structure, dividend policy, profitability, and company's efficiency. This chapter then discusses the impact of the revised screening methodology to be listed as a Shariah-compliant firm. The research hypotheses and research framework are developed at the end of the discussion, followed by the conclusion of the chapter.

2.2 Sustainable Growth Rate (SGR)

The term SGR has been used to refer to the maximum growth rate at which a firm can expand its sales or revenues and maintain its capital structure (Higgins, 1997). The SGR is seen as a factor that is strongly related to firm performance and which plays an important role in addressing the aim of SGR–maximising growth rate in sales without increasing firm debt or issuing new equity. The following analysis discusses the definition of SGR based on previous research.

According to Platt et al. (1995) defined SGR as the rate at which a company's sales and assets can grow if the company sells no new equity and wishes to maintain its capital structure. Moreover, SGR has also been defined as the maximum annual rate of increase in total assets that can be supported by internally generated equity capital (Vasiliou & Karkazis, 2002). Olson (2005) described SGR as the growth a firm can achieve given its financial and operating constraints, while Ashta (2008) defined SGR as the rate of growth that allows the company to grow without having too much or too little idle cash (Ashta, 2008). Based on Lockwood and Prombutr (2010), SGR is calculated as the earnings retention ratio times the return on equity, and is a more forward-looking indicator that investors might use to form expectations.

Fonseka et al. (2012) stated that SGR is the maximum feasible growth rate of a firm that can be achieved in accordance with the financial, operational, and managerial conditions, and policies. SGR is the maximum rate at which a firm can grow without altering its financial structure (Hamelin, 2013). Channon & McGee (2015) stated that SGR is the rate of increase in return on equity in line with a firm's target debt to equity, dividend payout, profit margins, and total assets to sales ratios. Hafid (2016) defined SGR as the maximum annual increasing percentage in sales achieved based on the target operations, obligations, and dividend payout ratio. Therefore, SGR can be defined as the maximum growth rate that a company can achieve in line with its target capital structure, target dividend policy, profitability, and asset efficiency.

Table 2.1 shows the summary of definitions of SGR by previous researchers and the author.

Table 2.1: Definitions of SGR by Previous Researchers

No.	Author	Definition	Author's Definition
1.	Higgins (1977)	The maximum rate at which a firm can expand its sales or revenues without decreasing its financial resources.	SGR is the maximum growth rate that the company can achieve consistent with the target capital structure, target dividend policy, profitability, and company efficiency.
2.	Platt et al., (1995)	The growth rate at which a company's sales and assets can grow if the company sells no new equity and wishes to maintain its capital structure.	
3.	Vasiliou and Karkazis (2002)	The maximum annual rate of increase in total assets that can be supported by internally generated equity capital.	
4.	Olson (2005)	Growth the firm can achieve given its financial and operating constraints.	
5.	Ashta (2008)	The growth rate which allows the company to grow without having too much or too little idle cash.	
6.	Lockwood & Prombutr (2010)	The earnings retention ratio times the return on equity, is a more forward-looking factor that investors might use to form expectations.	
7.	(Fonseka, Ramos, & Tian, 2012)	The maximum feasible growth rate of a firm and which can be achieved in accordance with their financial, operational, and managerial conditions and policies.	
8.	Hamelin (2013)	The maximum rate at which a firm can grow without altering its financial structure.	
9.	Channon, McGee (2015)	The rate of increase in the return on equity consistent with targets for debt to equity ratio, dividend payout ratio, profit margins, and total assets to sales ratios.[1]	
10.	Hafid (2016)	The maximum annual increasing percentage in the sales achieved based on target operation, obligation, and dividend payout ratio.	

Source: Author (2018)

[1] Channonl and McGee (2015) stated that the meaning is an alternative to define the growth rate in terms of rate of return on sales by Higgins (1977).

According to Srinivasa (2011), the combination of operating and financial elements is of great importance in determining the SGR because it can increase firm value. Moreover, a review by Phillips, Anderson and Volker (2010) found that one of the financial dynamics that influence firm growth is a firm's capital structure, while earnings growth is a key valuation model of a company. Table 2.2 shows the similarities among the SGR models based on the research by Zantout (1990). Kisors (1964) stated that the effect of SGR can be measured based on earnings per share, while Learner and Carleton stated that the measurement is based on total assets. Moreover, Higgins (1977), and Ulrich and Arlow (1980) stated that the effect of SGR can be seen by sales.

Table 2.2: Similarities among SGR models

Author	**SGR Model**	**Number of Model**	**Effects of Different Business Variables**	**Author Discussion**
Kisor (1964)	g* = (1-d)(ROE) g* = Sustainable growth rate in earnings per share d = target dividend payout ROE = rate of return on equity	Model 1*	Earnings per share	Based on Zantout (1990), all four (models 1, 2, 3, and 4) are versions of the same model. He proves that at the end of the calculation of all the models, the formula of SGR is retention ratio multiplied by return on
Lerner and Carleton (1966)	g* = (1-d) (1-T) [R+(R-r)(D/E)] g* = Sustainable growth rate of assets (1-d) = earnings retention ratio T = tax rate R = before interest and taxes rate of return on assets r = interest rate on borrowed funds D = total liabilities E = Shareholders' equity	Model 2*	Assets	
Higgins (1977)	g* = [m(1-d) (1+D/E)] / [(TA/S) – m(1-d)(1+D/E)]	Model 3*	Sales	

	g* = sustainable growth in sales m = profit margin on new and existing sales after taxes d = target dividend payout ratio D/E = target total debt to equity ratio TA/S = ratio of total assets to net sales on new and existing sales		equity. Therefore, the formula for SGR in this paper is ROE × RR using Higgins assumptions.
Ulrich and Arlow (1980)	g* = m(S/TA)(1-d)[1+(D/E)] g* = sustainable growth rate m = profit margin on sales S/TA = total asset turnover (1-d) = retention ratio D/E = debt to equity ratio	Model 4*	sales

Notes:

* The details similarities among SGR models based on Zantout (1990) stated as below:

New Assets = New Financing
New Assets = New Debt + New Equity
New Assets = NI (1 – d) (D/E) + NI (1 –d)
New Assets = NI (1 – d) (1 + D/E)
(ΔS) (TA/S) = NI (1 – d) (1 + D/E)
ΔS/S = (NI/TA) (1 – d) (1 + D/E)
g* = (NI/S) (S/TA) (1 – d) (1 + D/E) **Model 4**
g* = (NI/TA) (1 – d) (1 + D/E)
g* = (1 – d) (NI/TA) (TA/E)
g* = (1 – d) (NI/E)
g* = Retention Ratio × Return on Equity **Model 1**

From Model 4, the similarities as below

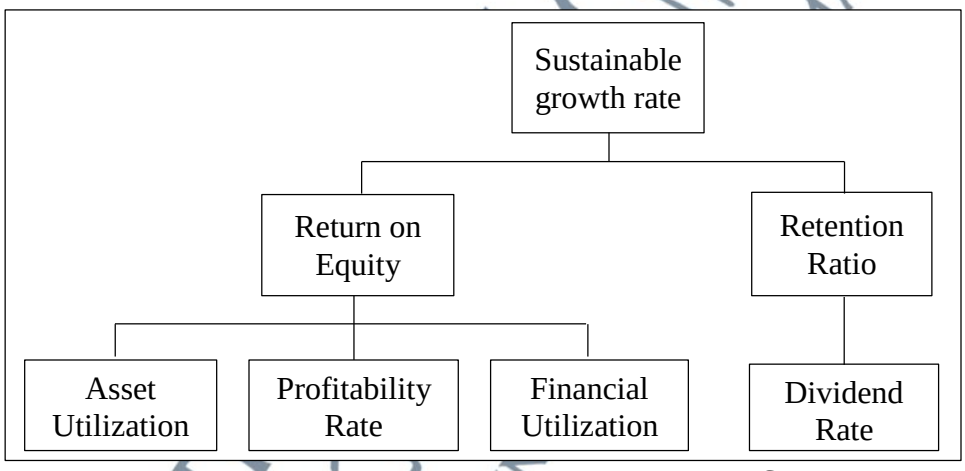
g* = (NI/S) (S/TA) (1 – d) (1 + D/E)
g* = (1 – d) (1 + D/E) (NI/TA)
g* = (1 – d) (1 + D/E) [(EBIT – INT) (1-D)/TA)]
g* = (1 – d) (1 – T) (1 + D/E) [(EBIT – INT)/TA)]
g* = (1 – d) (1 – T) [(EBIT – INT/TA) + (D/E) (EBIT – INT/TA)]
g* = (1 – d) (1 – T) [(EBIT/TA – INT/TA) + (D/E) (EBIT/TA – INT/TA)]
g* = (1 – d) (1 – T) [(EBIT/TA + D/E (EBIT/TA – INT/TA – (INT/TA) (E/D))]
g* = (1 – d) (1 – T) { R + D/E [R – r (D/TA + (D/TA) (E/D))] }
g* = (1 – d) (1 – T) { R + D/E [R – r (D/TA + (E/D)] }
g* = (1 – d) (1 – T) [R + D/E [R – r)] **Model 2**

From Model 3, the similarities as below

g* = [m(1-d) (1+D/E)] / [(TA/S) – m(1-d) (1+D/E)]
g* = [(NI/S) (1-d) (1+D/E)] / [(TA/S) – (NI/S) (1-d) (1+D/E)]
g* = [NI (1-d) (TA/E)] / [(TA – NI (1-d) (TA+D/E)]
g* = [(NI/E) (1 – d)] / [1 – (NI/E) (1-d)]
g* = [(NI/E) (1 – d)] / [E – NI (1-d)]
g* = [NI (1 – d)] / Beginning of Year Stockholders' Equity]
g* = **Retention Ratio × Return on Equity** **Model 1**

Source: Author (2018)

Based on Zantout (1990), all four models (Models 1, 2, 3, and 4) are versions of the same base model. He proved that at the end of the calculation of all the models, the formula for SGR is the retention ratio (RR) multiplied by return on equity (ROE). Previous studies used the Higgins model to calculate SGR (Amouzesh et al., 2011; Cahyo Hartono & Rahmi Utami, 2016; Chen, Gupta, Lee, & Lee, 2013; Escalante, Turvey, & Barry, 2009; Fonseka, Ramos, & Tian, 2012; Hafid, 2016; Molly, Laveren, & Jorissen, 2011). Based on Fonseka et al. (2012), when used as a continuous and dichotomous variable, the Higgins model SGR is affected by variations in financial characteristics. Therefore, the formula for SGR in this paper is ROE × RR using the Higgins model, as shown in Figure 2.1.



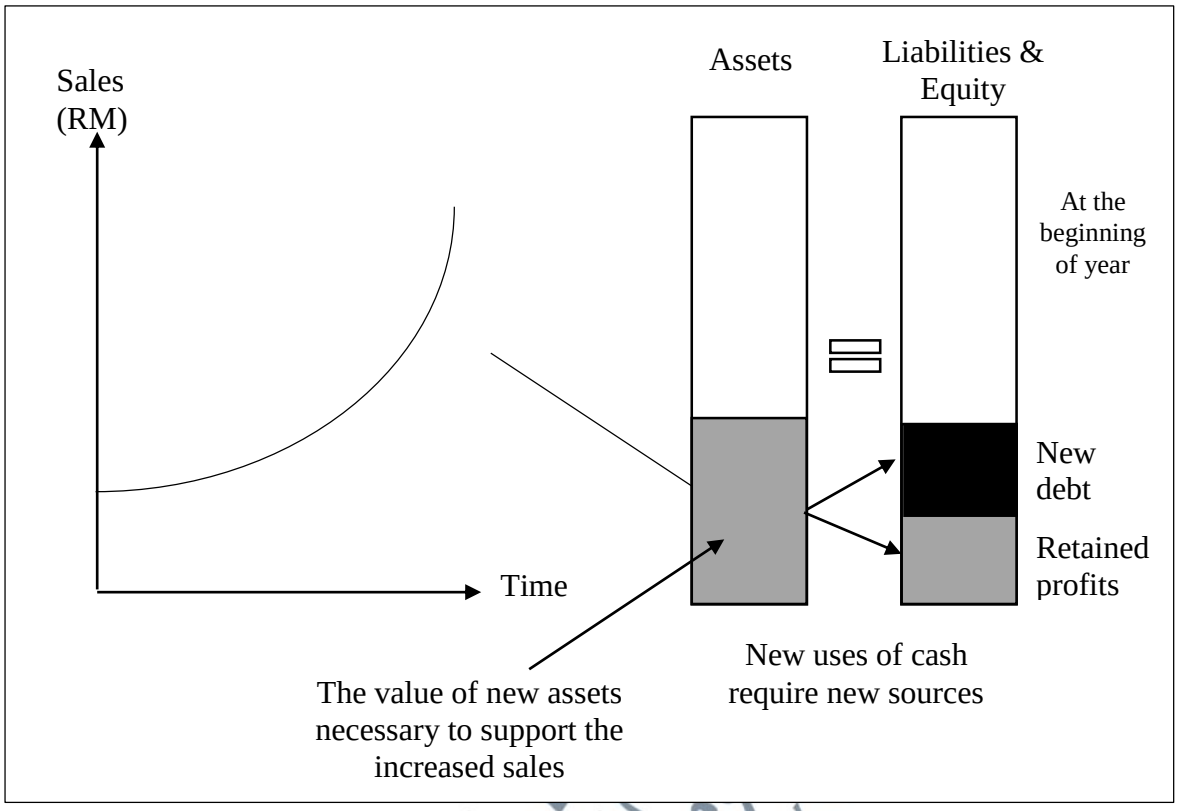
Source: Higgins (1977)

Figure 2.1: SGR Framework

2.2.1 Higgins Model

According to Higgins (1977), sustainable growth in a business context is the maximum platform or benchmark for a company to grow its revenue without reducing its financial resources. The combination of a company's operating elements (i.e. profit margin and asset efficiency) and financial elements (i.e. capital structure and retention ratio) into a single measurement becomes a very valuable financial performance measurement for every company.

In order to demonstrate the interdependencies between growth and financial policy, the increase in annual sales must have adequate support from annual sources of corporate capital. To calculate the firm's SGR, the addition to assets must be equal to the addition to liabilities and owners' equity. In other words, the new assets must be financed by new debt or through an increase in equity via retained earnings (refer Figure 2.2). Figure 2.2 below shows the changes in part of the company balance sheet, which are assets, liability, and equity due to the increase in sales over time. The figure describes the value of the new assets that are necessary to support the increasing sales and new uses of cash that require new sources of financing (Higgins, 1977).



Source: Higgins (1977)

Figure 2.2: The Interdependencies between Growth and Financial Policy

The SGR by Higgins (1977) in this study is attained by ignoring inflation and focusing on a company that wants to increase sales at a rapid rate while at the same time maintaining a target payout ratio and capital structure without issuing new equity. This study is based on rational expectations, which assumes that the company maintains its target payout ratio and capital structure and its operating performance (profitability and company's efficiency).

The decomposition of the SGR model by calculating the return on equity multiplied by the retention ratio (Zantout, 1990) based on the Higgins model is as shown below.

$$\frac{\Delta S}{S} = \frac{p(1-d)(1+L)}{t - p(1-d)(1+L)}$$

$$= \frac{(NI/S)(1-d)(1+D/E)}{(TA/S) - (NI/S)(1-d)(1+D/E)}$$

$$= \frac{(NI)(1-d)(TA/E)}{(TA) - (NI)(1-d)(TA/E)}$$

$$= \frac{(NI/E)(1-d)}{1 - (NI/E)(1-d)}$$

$$= \frac{(NI)(1-d)}{E - (NI)(1-d)}$$

$$= \frac{(NI)(1-d)}{\text{Beginning of Year Stockholder's Equity}}$$

$$= ROE \times (1-d)$$

$$= ROE \times RR$$

Where,

p = the profit margin on new and existing sales after taxes,

d = the target dividend payout ratio [(1 – d) therefore is the target retention ratio],

L = the target total debt to equity ratio,

t = the ratio of total assets to net sales on new and existing sales,

S = sales at the beginning of the year, and

Δs = increase in sales during the year.

NI = Net Income,

D = Total Debt,

E = Total Equity,

TA = Total Assets,

ROE = Return on equity, and

RR = Retention Ratio.

Therefore, the percentage change in sales can also be derived from the SGR as the maximum growth rate in sales within a target capital structure and dividend policy, net profit margin, and asset to sales.

2.2.2 The Importance of SGR

SGR has to be evaluated with specific measurements of a company's performance. This measurement can be explained by determining the factors that affect the firm's SGR to help stakeholders (either internal or external management or customers) make the right decisions. According to Vasiliou and Karkazis (2002), SGR is not only applicable for firms but can also be used for banks. They stated that banks must know the maximum annual rate to increase total assets that can be supported by internally generated equity capital. Ulrich and Arlow (1980) stated that a firm that is profitable and growing is not without potential financial problems. However these financial problems can be reduced when sufficient analysis and planning takes place. Management should consider alternatives and plan for the effect of growth through the use of the sustainable growth rate rather than responding to it.

Focusing on firms, the results of SGR can guide the growth strategies of financially distressed firms and firms attempting to reduce their leverage. The SGR formula tells firms with access to financial markets whether they will need to raise new funds to achieve a sales growth level in excess of their SGR (Platt, 1995). Moreover, Harkleroad (1993) stated that SGR provides an analytical framework to help identify which elements of a firm's operating and financial structures management should focus on to improve the financial performance. It also enables analysts to compare performance over time to quickly identify

the key elements of a competitor's strategy so they can focus their efforts on identifying the competitor's strengths and weaknesses. SGR is also an imperative tool in helping managers make major corporate financial decisions (Babcock, 1970). Arora, Kumar and Verma (2018) mentioned that SGR can be useful to managers in balancing their operational and financial strategies. It has been cited as a practically applicable concept in the modern financial management context, which can be used as a strategic planning and controlling tool of a firm (Fonseka, 2012).

Johnson and Soenen (2003) stated that a company's strategic planning in handling its limitations and policy constraints (referring to leverage and dividend payouts) can help the company to sustain its growth. Mamilla (2019) has also claimed that sustainable growth rates are needed for companies to succeed in a competitive world. SGR will help investors and analysts find the maximum possible rate at which existing assets can be used to grow the firm. She also stated that it can enable managers to do financial planning effectively by mapping SGR with financial policies. Managers and investors will begin to measure whether the future growth strategy of the company is feasible and can provide insight into the levers of corporate growth. Kanani et al. (2013) state that important factors shaping financial information include a firm's sustainable growth and level of risk facing a company. In this case, the decision-making process and investment guidance are influenced by financial information.

In addition, sustainable growth represents a comprehensive summary measurement that captures the bank's ability to manage the composition, credit quality, and pricing of its assets and liabilities, as well as the bank's degree of operating and financial leverage (Olson & Pagano, 2005). The authors also mentioned that a bank's SGR serves as a useful measure

of the operating and financial factors that affect the bank's market value due to its influence on the level and riskiness of the bank's cash flows. It also enables bank managers to set consistent internal targets for the bank's operations, capital structure, and dividend policies. The SGR helps explain why it is necessary to keep a proper balance between firm growth and profitability, and it is also a useful tool for a banker to determine the creditworthiness of a firm (Fonseka, 2012). Therefore, the concept of SGR can be useful not only for firms but also for banks.

Higgins (1977) also mentioned that the SGR model is a useful method for evaluating alternatives and for ensuring that the internal financial, operating, and growth strategies adopted are consistent. At the end of the day, the financial policy choice of a firm and its implementation is dependent on firm management. Therefore, SGR is a very important tool for a firm to manage, guide, control, and plan the operating and financial strategies in order to improve its financial performance and help managers make financing decisions. This study focuses on the importance of SGR for a firm (refer to Table 2.3 for details).

Table 2.3: Summary of the importance of SGR

No.	Author	Focus	Outcome	Author Discussion
1.	Babcock (1970)	Firm	Imperative in helping managers in taking major corporate financial decisions.	SGR is a very important tool for firms to manage, guide, control and plan their operating and financial strategies in order to improve the financial performance and help managers in financing decisions.
2.	Higgins (1977)		The SGR model is a useful method for evaluating alternatives and for ensuring that the internal financial, operating, and growth strategies adopted are consistent. The financiall policy choice of a firm and its implementation is dependent on firm management.	
3.	Harkleroad (1993)	Firm	Provides an analytical framework to help identify which elements of a firm's operating and financial structures management are most likely to focus on to improve its financial performance.	
4.	Platt (1995)	Firm	The results of SGR can guide the growth strategies of financially distressed firms and firms attempting to reduce their leverage.	
5.	Vasiliou and Karkazis (2002)	Bank	Banks must know the maximum annual rate (SGR) to increase in total assets that can be supported by internally generated equity capital.	
6.	Johnson and Soenen (2003)		A company's strategic planning in handling its limitations and policy constraints (referring to leverage and dividend payouts) can help the company to sustain its growth.	
7.	Olson and Pagano (2005)	Bank	Sustainable growth represents a comprehensive summary measure that captures the bank's ability to manage the composition, credit quality, and pricing of its assets and liabilities, as well as the bank's degree of operating and financial leverage.	
8.	Fonseka (2012)	Firm	Practically applicable concept in the modern financial management context, which can be used as a strategic planning and controlling tool of a firm.	
9.	Arora, Kumar and Verma (2018)	Firm	Useful to managers in balancing their operational and financial strategies	
10.	Mamilla (2019)		SGR will help investors and analysts find the maximum possible rate at which existing assets can be used to grow the firm. Enable managers to do financial planning effectively by mapping SGR with financial policies.	

Source: Author (2018)

2.2.3 Firm Specific Factors of SGR

The SGR of firms has been researched and discussed by Higgins (1977). Achieving a high SGR is one way for a firm to survive and remain attractive to its investors, bankers, analysts, and researchers. Researchers have developed a number of SGR models, which aim to provide a theoretical basis for factors that influence SGR (Higgins, 1977; Harkleroad, 1993; Platt, 1995; Vasiliou & Karkazis, 2002; Olson & Pagano, 2005; Liow, 2010; Fonseka, 2012; Hafid, 2016; Eldomiaty, 2017; Arora, Kumar & Verma, 2018). Each model suggests a number of possible factors that could influence SGR, while some factors within each model are similar.

There are many factors that influence the SGR in the literature. A famous framework for SGR developed by Higgins (1977) discusses four main factors that influence SGR – capital structure, dividend policy (under financial constraints), profitability, and asset efficiency. Based on Hartono and Utami (2016), and Radasanu (2015), the SGR is influenced by four factors:(1) profitability ratio, where an increase in the profitability ratio increases the generation of internal funds, with a direct impact on achieving growth; (2) asset turnover ratio, where an increase in the net asset turnover ratio causes an increase in the sales generated per asset unit, which reduces the need for additional assets for an increase in sales and results in an increase in the SGR; (3) financial policy, where an increase in total debt provides additional resources and increases the SGR; and (4) dividend policy, where an increase in the retention ratio increases the growth of capital and implicitly the SGR.

2.2.3.1 Capital Structure and SGR

Capital structure was found to influence the SGR of a firm (Escalante et al., 2009; Fonseka et al., 2012; Higgins, 1977). By taking into consideration the firm's leverage in SGR performance, the profitability of companies is highly related to how the manager handles the company's capital structure including whether the manager borrows long-term or short-term debt, or equity in addition to improving the firm's growth.

This is supported by Johnson and Soenen (2003), who stated that a firm's strategic planning in handling essential limitations and constraints of policy with respect to leverage and dividend payouts can sustain the company's growth. Higgins (1977) mentioned that the relaxation of financial constraints is the strategy adopted by many corporations in response to a sustainable growth problem by increasing the firm's debt ratio or by reducing its payout ratio. Furthermore, Fazzari et al. (1988) mentioned that the unwillingness of a firm to reduce dividend may be due to signalling, in which case the firm may reduce its investment rather than seek more costly external financing.

Previous research by Lee et al. (2016) found that there is a significant negative correlation between debt financing and dividends where a firm's ability to pay dividends are higher with lower leverage levels. In order to support the findings, the 2SLS, 3SLS, and GMM methods were used to analyse the joint determination of three corporate decisions and also the interaction between them, which should be taken into account in a simultaneous equation framework. The sample of this study was from the annual data of the US-listed firms between 1965 and 2012. Management must explicitly consider the tradeoffs between more growth and more leverage and less dividends (Higgins, 1977).

Therefore, managing a company's financial leverage might be one of the important factors in sustaining the growth of the company.

Moreover, the concept of SGR by Ashta (2008) is useful for firms that are growing very fast and for those facing financial distress; by modifying the calculation it can improve financial analysis and clarity by calculating the firms' SGR. The author's findings proved that the modification of SGR formula was consistent when the calculation used opening assets in the asset turnover ratio. Furthermore, the calculation for leverage ratio is opening total assets divided by opening equity and should use figures of the same date. Specifically, the modification of the calculation of the asset turnover rate based on those changes can be calculated by sales divided by opening total assets rather than dividing the closing total assets as used by Higgins (1977). The modification to use the same date is more intuitive because sales are created based on assets rather than other factors, which are more indirect and remote (Ashta, 2008). Therefore, both assets and equity should have a specific term in the calculation of leverage ratio; and the value of the assets should be at the same period.

Sometimes, a growth rate that is too high causes financial stress, and, therefore, the company will face higher costs, which may lead to bankruptcy, financial losses, and declining market share (Fonseka et al., 2012). Fazzari et al. (1988) stated that financial distress arises when a firm has difficulty in paying debt principal and interest obligations, where, in an extreme case, a firm can become bankrupt. Platt (1995) also mentioned that many firms in financial distress have limited or no access to the debt markets. The relationship between the fundamentals of financial institutions (i.e. cost income ratio, equity to total assets, total asset growth, and ratio of loan loss reserve to gross loans) and

all these variables with a lag of one year had a positive impact on the financial distress probability in the next year (Zaki, Bah, & Rao, 2011).

Consequently, many financial agreements normally require inclusion of target debt equity ratios (Fazzari et al., 1988). Moreover, Kanani et al. (2013) stated that the important factors in financial information are firm growth and also the risk of the company. Gómez-Bezares, Przychodzen, and Przychodzen (2017) stated that firms incorporating sustainability issues into their business operations are better able to leverage their resources towards stronger financial performance and shareholder value creation than other companies. In other words, the use of debt is limited as companies might face financial distress or bankruptcy. In this case, the decision-making process and investment guidance are influenced by firm growth and risk of the company in order to have better financial performance and shareholder wealth.

A review of the literature regarding the SGR model by Escalante et al. (2009) found the relevance of the sustainable growth challenge (SGC) model in explaining a farm's financial and operating decisions. The research used 197 grain and 54 livestock farms during the period of 1995–2001. The farms' tendency to attain balanced growth seemed to be more influenced by asset productivity and leverage decisions, which were given different emphasis by grain and livestock farms due to differing operational structures and constraints. Chung et al. (2013) found that there is no significant evidence that capital structure policy influences acquisition or probability of failure. They used data from the oil industry and stated that firms seem to increase their leverage when they face attractive growth opportunities. Another reason to increase firm leverage is poor operating performance that reduces equity value or requires borrowing.

In addition to that, firms are acquired when they face rapid growth, which can reduce financial slack. They claimed that firms can survive and operate with persistently low leverage without focusing on acquisition including getting potential financing sources; this use of internal financing (retained earnings) supports the pecking order theory. O'Connor (2013) indicated that for participating firms, the equity market liberalisation did not depend on an increase in external finance growth. In order to obtain the finding, this study used a sample of 686 investable firms from 26 emerging market countries. It was found that the firms did not issue more or less equity capital post liberalisation, thereby suggesting that the gains from equity market liberalisation may not necessarily cause a reduction in financing constraints. Therefore, the achievement of firm's growth is not necessarily conditioned by internal or external financing but it's depend on firm's circumstances.

In addition, Wu and Au Yeung (2012) found that growth type, such as firm's initial market-to-book ratio and asset tangibility, can significantly predict future leverage ratios. Growth type is persistent and mainly sorted by the cross sections of corporate fundamental variables, such as tangible versus intangible investment styles. Also, low growth type firms are more likely to issue new debt than equity when economic and market conditions improve, while high growth type firms are least likely to issue debt and equity. Meanwhile, the relationship between financing and growth behaviour is explicitly integrated (Molly, Laveren, & Jorissen, 2012). The authors also found that capital structure was not directly influenced by management but indirectly through the realised growth rate. Moreover, the results indicate that next-generation companies grow slower because they have the tendency to forego part of their growth rather than risk the loss of family control due to the increasing use of debt. Therefore, the findings demonstrate that the firms are rationally

seeking and investing financial sources in a manner that is aligned with their types of growth.

Korteweg (2010) mentioned that the market expects the company to lever up later on to take advantage of leverage. As stated by Park and Jang (2010), debt leverage is an effective way for a firm to improve its performance and enhance free cash flows. Their results found that debt leverage had a positive influence on firm performance. Their results also supported the signalling effect theory by Ross (1977). However, Anderson and Nyborg (2011) stated that they found a negative correlation between growth and firm performance. In relation to this, Shaikh (2010) expressed that leveraged firms can expand their profits in booms. However, in a declining economy, they may even face bankruptcy. Leveraged firms are more stable and profitable compared to non-leveraged firms during economic booms but during recessions, are more risk-prone and less profitable than non-leveraged firms. As such, leveraged firms rely on good economic conditions to remain profitable.

In addition, leverage amplifies the losses or gains in business activities (Ilie & Olaru, 2013). Leverage boosted gains and supported economic growth during good times. As such, governments and firms are using leverage on a large scale. However, governments and firms deleverage during bad times. Financial crises can occur due to high leverage, and, usually, deleveraging will follow a financial crisis. This is because firms want to reduce risk and strengthen their financial stability.

2.2.3.2 Dividend Policy and SGR

Dividend policy, where an increase in the retention ratio increases the growth of capital and implicitly the SGR (Hartono and Utami, 2016; Radasanu, 2015). A review by Chen et al. (2013) regarding dividend policy found that the empirical results of support the mean-reverting process of the optimal growth rate and importance of covariance between the profitability and growth rate in determining dividend payouts. The researchers have found that the sustainable growth rate is influenced not by the optimal growth rate, but by the payout ratio.

Eldomiaty et al. (2017) found that growth of sales is significantly affected by previous dividend payout ratio. Firms have a target dividend payout ratio, which is influenced by growth of sales. Firms may use dividend payout to signal the growth opportunity and increase firm's investment (Lee et al., 2016). Liow (2010) found that the higher the earnings retention rate, the lower the dividend payout ratio and the higher the SGR. By reducing payment to zero, more growth can be supported, though less than when new debt can be raised (Platt, Platt, and Chen, 1995). Olson and Pagano (2005) mentioned in term of bank that the bank can only grow faster than its sustainable growth if it increases its return on assets, reduces its dividend payout, decreases its equity capital ratio, or issues new equity.

Lee et al. (2015) used 31,255 firm data during the period from 1969 to 2011. They found that there is a positive or negative relationship between the payout ratio and risk when the growth rate is higher or lower than the rate of return on total assets. Theoretically, a negative relationship between the payout and growth ratios means that high growth firms need to reduce the payout ratio and retain more earnings. Other previous studies by Blau

and Fuller (2008), Fama and French (2001), and Rozeff (1982) argued that high growth firms tend to pay out less in dividends and have higher investment opportunities.

In contrast, Molly et al. (2012) found that there is no significant effects between dividend payments and SGR. Ghosh and Sun (2014) previously predicted that high growth firms pay higher dividends but the result was obtained when the risk was not explicitly considered. By observing 794 firms between 1999 and 2009, the authors found a significant positive relation between externally financed growth and dividend payments. The relation is stronger among real estate investment trusts (REITs) with more growth opportunities and REITs that issue new equity and debt. This is consistent with the notion that by reducing agency costs and facilitating capital increase and dividends, growth is enhanced. The authors in this study used the simultaneous equation models (SEMs) to determine the effect of excess dividends on the externally financed growth.

Also, Chen et al. (2013) stated that the intertemporal behaviour of the covariance may shed some light on the fact of disappearing dividends by using 31,255 samples of data collected from 1969 to 2011. The empirical results of supported the mean-reverting process of the growth rate and importance of covariance between the profitability and growth rate in determining dividend payouts. Firm characteristics, like size, book-to-market ratio, and systematic risk have a significant influence on the forecast errors of dividend and sales growth rate estimation (Brick, Chen, Hsieh, and Lee, 2016). Therefore, handling the constraints and limitations of policy on dividend policy is one of the key issues in planning towards the successful future growth of a company.

2.2.3.3 Profitability and SGR

By focusing on enhancing business prosperity, Hartono and Utami (2016) and Radasanu (2015) stated that the profitability ratio where an increase in the profitability ratio increases the generation of internal funds with direct impacts on achieving growth. Amouzesh et al. (2011) investigated the relationship between SGR, liquidity, and firm performance. The findings were obtained using 54 listed companies in the Iranian financial market as the sample and linear regression was used as the method to analyse the relationship between the variables. The authors found that the deviation of the actual growth rate from SGR was related to return on assets and price-to-book ratios.

Liow (2010) found that the most influencing variables on the SGR are firm valuation, profitability, and earnings retention ratio. The findings shows that firm valuation, profitability and earnings retentation ratio are significantly positive with SGR. Profitability has a significant positive effect on the SGR (Hartono & Utami, 2016). Similalry, Hafid (2016) also found that the profit margin and total assets turnover have a positive effect on SGR. Firms with lower rates of sustainable growth tend to have lower margins, lower return on assets, lower return on equity, and lower asset growth rate (Arora, 2018). Platt, Platt, and Chen (1995) stated that improving margins and/or assets can increase the firm's SGR. Moreover, in term of banks, Olson and Pagano (2005) mentioned that a bank can only grow faster than its sustainable growth if it increases its return on assets, reduces its dividend payout, decreases its equity capital ratio, or issues new equity.

Chang (2012) stated that the major factor for the company to be successful in its management and business is its financial structure. Return on assets will influence firm growth in the long-term future development. In relation to this, the study focuses on the

sustainable growth of airlines, which can help examine the ability of companies to finance future development. He also mentioned that companies with too rapid growth can exhaust resources, but a slow growing company may not be able to utilise its resources effectively.

Furthermore, Fonseka et al. (2012) hypothesised that the Higgins and Van Horne's SGR models are qualitatively and approximately the same in relation to the most common financial characteristics of a firm. However, if the Higgins model is used to compute SGR, it would give higher SGR for more profitable firms in comparison to the use of the Van Horne model. A firm with higher leverage is given a higher SGR in Van Horne's than Higgins.

2.2.3.4 Company Efficiency and SGR

By taking the enhancement of company's efficiency into consideration, company efficiency or asset turnover ratio, where an increase in this ratio causes an increase in sales generated per asset unit, which reduces the need for additional assets for an increase in sales and which results in an increase in the SGR (Hartono and Utami, 2016; Radasanu, 2015). Pandit and Tejani (2011) mentioned that the combination of four components are profitability, retention rate, asset turnover and financial leverage is linked to the growth performance. If all of these are stable and then show an upward trend over a period of time, it can be said that the company uses its assets to the maximum and can turn into more profits and revenues, thereby experiencing a sustainable growth rate. The sustainable growth rate will be increased by increasing any one of the four components (Ulrich and Arlow, 1986). Similarly, eliminating one of the four would decrease the sustainable growth rate. Asset

efficiency depends on the state of the technology being used and can not be substantially modified in the short run.

Mamilla (2019) also stated that the sustainable growth rate depends on key factors such as financial leverage, liquidity, asset quality, size and taxation. The study used linear regression method to examine the relatioiship between financial leverage, liquidity and asset efficiency with SGR. Focus on asset efficiency, the findings found that there is a significant negative relationship between SGR and asset efficiency. Similarly, with vasiu and Ilie (2018), the findings showed that asset turnover has a negative effect on the SGR. They also claimed that an increase in revenue is measured by an increase in efficiency in the usage of its assets. This reduces the need to increase the asset base in order to support revenue growth, and thus leads to an increase in the SGR. In contrast, Hafid (2016) found that there is a positive effect between total assets turnover and SGR.Alayemi and Akintoye (2015), on the other hand found that there is no significant relationship between the rate of sustainable growth and the total turnover of assets. In order to examine the determinants or components of sustainable growth rate in manufacturing companies in sub-Saharan Africa from 2008 to 2012, they used correlation and regression analysis.

Moreover, Carstens and Wesson (2019) suggested that the overall turnover of assets indicates the ability to effectively use assets to achieve turnover, as an increased turnover of assets means a lower capital intensity, resulting in a higher SGR. In terms of asset turnover, evidence from Higgins (1992) shows that it is primarily determined by the products, competitive strategy and management capacity of the company to effectively manage assets. The sustainable growth rate was described by Channon and McGee (2015) as the rate of increase in return on equity consistent with a defined financial strategy,

namely debt-to-equity ratio targets, dividend payout ratio, profit margins and total asset-to-sales ratios. They also noted that improved efficiency can also be a significant source of new funds for sustainable growth, reducing capital intensity through higher asset turnover and higher productivity.

Przychodzen and Przychodzen (2014) mentioned that the new assets are funded through new debt and a rise in equity from retained earnings if the company is able to meet a sustainable growth rate. In other words, in the long term, the company's financial and operating policies are directed at stable risk and returns for the owners of the residual claims. Furthermore, using 15,377 firms, Fonseka et al. (2012) found that a firm's financial characteristics (fixed assets, tax, liquidity and profitability) had a higher effect on the direction of sustainable growth. Higgins (1977) mentioned that more profitable firms had a higher SGR due to effective investment in fixed assets, efficient working capital management, and higher taxes. Capital intensive industries like machinery and construction materials have lower asset turnover ratios, thus resulting in a lower SGR (Arora, Kumar, and Verma, 2018).

2.2.3.5 Firm Size and SGR

Firm size is recognized as the most significant function of the firm growth due to cost differentials between small and large firms (Bentzen, Madsen and Smith, 2012). Wang, Wang and Dai (2019) measured the size of firm as its normal logarithm of total company assets. They found that the relationship between the sustainable growth rate and the size of the company is positive and significant. Similarly, Xu and Wang (2018) also found that firm size has a significant and positive impact on SGR. Furthermore, Ocak and Findik

(2019) investigated the effect of intangible assets and sub-components of intangible assets on sustainable growth rate and firm value in Turkey. The study used firm listed on Borsa Istanbul (1353 observations) from 2005 to 2013. The findings also found that firm size had positively and significantly affects the sustainable growth rates.

In contrast, firm size had significant negative relationship with SGR (Mamilla, 2019; Lockwood and Prombutr, 2010). Mamilla (2019) used linear regression method found that firm size had significant negative relationship with SGR. The study used five companies from oil refineries industry in India traded on Bombany Stock Exchange. Kouser, Bano, Azeem and Ul Hassan (2012) found that the relationship between sustainable growth rate and firm size is negative but not significant. They used 70 non-financial companies listed at Karachi Stock Exchange of Pakistan from 2001 to 2010. In the study, they choose panel data techniques which is fixed effects to provide an in-depth description of the inter-relationship between firm size, sustainable growth and profitability by using panel data techniques. Molly et al. (2012) also founf that there is no significant effects between size and SGR.

Moreover, Huang, Ying, Yang and Hassan (2019) used 20089 Chinese A-share listed firms over the period 2003 to 2017. The study aims to provide evidence on the relationship between trade credit financing and firm-level sustainable growth rate. They used firm size as control variable and measured as the natural logarithm of total assets. The findings found that firm size is significantly negative and suggested that the higher of the value, the lower the sustainable growth of firm. Mubeen and Hanif (2017) investigated the sustainability of growth rate of non-financial firm in Pakistan. They used liquidity, firm size and cash flows as independent variable while internal growth and sustainable growth as dependent

variables. They found that firm size is not significant relationship with SGR. They also stated that even whenthe company size has mixed trends in some of the industries, which must be industry-specific so that for all non-financial companies it can not be generalised.

Similarly, Memon, Channar and Obaid (2017) also found that there is no significant relationship between growth rate and the firm size. They investigated the relationship among profitability, liquidity and sustainable growth rate of pharmaceutical firms in the Pakistan. In the context of the Gibrat Law, which claimed that growth is independent of size (Mogos, Davis and Baprista, 2015). The relationship between firm growth and size is generally interpreted. They claimed that there is significant support for the law when only large established manufacturing firms are considered. When introducing small companies, however, growth rates appear to be negatively correlated to the size of the company. Finally, manufacturing firms appear to be larger, more capital-intensive, with higher inertia and persistence, whereas companies in the services sector are labor-intensive, more dependent on labour constraints, and more likely to maintain Gibrat's independent growth size rule.

Understanding the growth patterns of the industry is essential for establishing sustainable growth strategies (Park & Jang, 2010). Park and Jang (2010) stated that, presently, little is known about the restaurant firm growth patterns. In the study, they examined the patterns of growth for restaurant firms in relation to the firm size class and internationalisation, retained earnings, long-term debt leverage, and growth opportunity. In general, the results of the study presented that small restaurant firms grew faster than large restaurant firms, but the growth rate decreased as firm size increased. Also, the growth rate of large firms decreased slower than that of small firms. Eldomiaty et al. (2017) stated that

large size firms (based on assets) are characterized by a decreasing sustainable growth of sales, while small size firms are associated with an increasing growth of sales. Thus, firm's size can have a positive and negative impact on the SGR of firm.

2.3 The Existence of Target Capital Structure (TCS)

The existing literature on capital structure is extensive and focuses particularly on target capital structure. The causes of capital structure have been studied extensively (Al-Najjar, 2011; Al-Yahyaee et al., 2013; Antoniou et al., 2002; Bhattacharjee et al., 2010; Bouraoui and Li, 2014; Brendea, 2014; Drobetz et al., 2013; Getzmann et al., 2014; Haron et al., 2013; Haron, 2016; Haron and Ibrahim, 2012). The following analysis discusses in details the firm specific factors of capital structure and target capital structure.

2.3.1 Firm Specific Factors of TCS

The following analysis discusses the firm specific factors of capital structure stated as below.

a) Non-Debt Tax Shield (NDTS)

There have been several studies in the literature reporting the relationship between Non-Debt Tax Shield (NDTS) and leverage. Chadha & Sharma (2015) found that the non-debt tax shield is significantly positively correlated with the financial leverage of the firm. This result is consistent with the trade-off theory. In contrast, the study by Li & Stathis (2017) indicated that investment tax credits as proxies for the non-debt tax shield have a significant negative relationship with market-based measures of leverage. They stated that the trade-off theory of capital structure as a proxy for the non-debt tax shield should be

inversely related to leverage. They also mentioned the weak evidence supporting the trade-off theory when examining other non-debt tax shield proxies, such as depreciation, net operating losses carry forwards, and tax.

The research study by Kumar, Colombage, & Rao (2017) also found that the non-debt tax shield had a negative relationship with debt. However, in the Asia-Pacific region, the non-debt tax shield is positively associated with debt. In addition, they stated that a negative relationship indicates that the greater the number of items in the non-debt including depreciation and amortization providing a tax shield, the lower the motivation for managers to include debt in the capital structure.

In addition to the study on Shariah compliant firms, Haron and Ibrahim (2012) recorded a negative relation between NDTS and leverage. The authors stated that NDTS and target leverage on Shariah compliant firms suggests that NDTS is the substitute to the tax shields on debt financing. The benefit of tax shields on interest payments encourages firms to take on more debt, but it also increases the probability that earnings in some years may not be sufficient to offset all tax deductions. Nevertheless, few studies are to be found providing details of the effect of a non-debt tax shield with different types of debt ratio (TDTA (book value), LTDTA (book value), TDTA (market value) and LTDTA (market value) because different types of leveragewill give different results associated with the depreciation and amortization.

b) Tangibility

Tangibility is defined as net fixed assets over total assets. Previous research has shown that tangibility is positively associated with leverage. Tangibility was analysed by Alipour et al. (2015) who predicted a positive impact on the debt level. They highlighted

that a company with more tangibility assets would need to have more collateral assets to service debt in the event of bankruptcy, and, therefore, would have greater ability to attract more debt. Firms with relatively safe tangibility assets would be exposed to the potential costs of financial distress, and, therefore, expected to borrow more (Chipeta & Deressa, 2016). They found that firms in Botswana, Mauritius, Namibia, South Africa, and Tanzania showed positive and statistically significant correlations between asset tangibility and leverage. The above finding is consistent with the study by Chadha & Sharma (2015). They also found that tangibility is positively and significantly correlated with the financial leverage of firms, which is consistent with the trade-off theory. The positive relationship results enable increased borrowing capacity with a relatively low rate of interest through the collateral value of assets.

The research findings of J. Chen et al. (2014) point towards the intangibility of assets; the results show that intangibility has a significant and positive effect on long-term debt ratio, indicating that firms with a higher proportion of intangible assets tend to have a higher level of leverage in book value. Moreover, Haron and Ibrahim (2012) found that tangibility is positively associated with leverage in Shariah-compliant firms. The positive relationship is consistent with the trade-off theory and can enhance the Shariah imposition that debt must be asset-backed, which means a firm operating under Islamic principles cannot have debt exceeding the tangible assets. The authors also recorded that firms with more tangible assets will be able to have more debt relative to firms with fewer tangible assets.

However, interestingly, this is contrary to a study by Sheikh & Qureshi (2017) on conventional and Islamic banks. They found that tangibility is negatively related to book leverage of the conventional and Islamic banks. The result is consistent with the trade-off

theory, which advocates that firms with safe tangibility assets tend to borrow more because they retain more value in the liquidation process than risky intangible assets. The research findings of Li & Stathis (2017) also point towards a negative relationship between tangibility and leverage. They found a significant negative correlation between tangibility and total debt to market value of assets. However, the result gives further support for the pecking order theory when examining tangibility.

c) Profitability

Previous research has shown that profitability is negatively associated with the leverage ratio (Ukaegbu ,2014; Gómez et al., 2014; J. Chen et al., 2014; Alipour et al., 2015; Sofat & Singh, 2017; Sheikh & Qureshi, 2017). In an analysis of profitability, Ukaegbu (2014) found that there is a significant negative association between profitability and leverage in manufacturing firms, hence supporting the pecking-order theory. Similarly, Gómez et al. (2014) found that profitability is a determinant of the indebtedness level of Peruvian firms and has a negative relationship, thereby confirming the Pecking-order theory.

According to Alipour et al. (2015), profitability is negatively significant with leverage, which means that firms with more profitability use internal sources in their financing decisions. Moreover, they stated that this is evidence for the pecking-order theory in that more profitable corporations tend to use less debt when financing their activity. J. Chen et al. (2014) found that firms' profitability is negatively associated with the leverage ratio and that the impact is more relevant to the total debt ratio by market value (MTD), thereby providing evidence for the pecking order theory. The higher profitability of firms

implies higher debt capacity and less risk to debt holders. Firms prefer internal financing and follow a strict dividend policy (Sofat & Singh, 2017).

The research findings of Haron and Ibrahim (2012) also found that profitability has a negative relationship with leverage. The findings indicated that Shariah compliant firms with high profit consume less leverage in their capital structure indicating the practice of hierarchical financing. In another study, Sheikh & Qureshi (2017) found that profitability is negatively related to book leverage of both conventional and Islamic banks in Pakistan. They mentioned that negative profit and insufficient internal funds suggest the need for external finance. In turn, banks raise capital through deposits and non-deposit liabilities to finance their investment opportunities, which is consistent with the prediction of the POT.

d) Business risk

Numerous studies have attempted to explain the relationship between business risk and leverage (Ezeoha, 2011; J. Chen et al., 2014; Sofat & Sigh, 2017; Kumar, Colombage, & Rao, 2017). Business risk is define as yearly change of earnings before interest and tax (EBIT). According to Kumar, Colombage, & Rao (2017), business risk is measured by the variability in earnings and defined as a standard deviation of EBIT or as a coefficient of variability in EBIT. They found that business risk increases the financial risk of a company; therefore, the findings found that there is a negative relationship of business risk with leverage and supported the capital structure theory (Pecking order theory and trade off theory). For the studies conducted in the European region, the relationship is found to be positively and significantly associated with leverage.

J. Chen et al. (2014) found that business risk and financial distress have a significant and positive impact on long-term debt ratio. They commented that one possible reason is

the specialty of the Chinese financial markets and the economic system that makes up the biggest market share. Conversely, Ezeoha (2011) reported no significant relationship between business risk and debt ratio. In another major study, business risk, asset composition, debt service capacity, and return on assets are negatively associated with firm size (Sofat & Sigh, 2017). They argued that larger firm size tends to have less business risk, less asset composition, and less debt service capacity.

e) Firm's size

Previous research has indicated that firm size can be measured as natural logarithm of total assets. Antoniou, Guney, & Paudyal (2002) found that the leverage ratio is positively related to the size of the firm. Similarly, Ukaegbu (2014) reported a positive relation between leverage and the size of the banks and also manufacturing firms. In an analysis of firm's size and leverage, Ukaegbu (2014) stated that large firms have lower agency cost of debt, for example, lower monitoring costs because of less volatile cash flows and easy access to the capital market. This result is consistent with the trade-off theory, which points out that large firms are able to diversify and take benefit of tax shields on interest payments.

In addition, size is the determinant of the indebtedness level of companies, which means that firms that begin to increase their sales need to invest in more assets (Gómez et al., 2014). J. Chen et al. (2014) also found that firm size has a statistically significant positive impact on all leverage, which means that large firms are associated with high leverage due to their better debt financing capability, which is consistent with the trade-off theory. In another previous research a negative relationship between firm size and all measures of capital structure (STD, LTD and TD) was found, which indicated that smaller

companies may not have much choice but to rely on bank loans (Alipour et al., 2015). The results are consistent with POT (pecking order rheory) that information asymmetry is a less severe issue in big firms. The research by Haron and Ibrahim (2012) found that firm size has a negatively significant influence on leverage. The author stated that larger firms tend to generate higher profit and have higher internal funding to support firm's investment. However, a negative relationship showed that Shariah compliant firms practice hierarchy in firm capital structure decisions.

In contrast, a recent study by Morri & Parri (2017) involving REIT firms showed that a positive relationship exists between REIT size and their level of financial leverage. They commented that larger sized REITs enjoy greater opportunities for diversification, which, in turn, provides lower volatility of their cash flows and lowers their inherent risk as well as their costs of financial distress. This view is supported by the study on banks by Sheikh & Qureshi (2017) who stated that bank size is positively related to book leverage and consistent with the predictions of POT, which suggests that large firms tend to borrow more because of their ability to diversify the risk and are perceived to be too big to fail. In contrast, Sofat & Sigh (2017) found that firm size has an insignificant relationship with debt equity ratio. Myers and Majluf (1984) suggested that information asymmetries are less likely in larger firms as they have the advantage of issuing equity instead of debt.

f) Growth opportunities

As for growth opportunities, defined as market value of equity to book value of equity. Haron and Ibrahim (2012) suggested that companies with more growth opportunities may have less leverage, suggesting a negative relationship, because growth firm management has greater incentives to show that it does not involve in underinvestment

and substitution of assets. There is a positive association between growth opportunities and leverage in manufacturing firms under the correlation matrix (Ukaegbu, 2014). They also found in the regression results that growth opportunities have a significant influence on leverage with a positive sign. This is because the more opportunities a firm has, it signals good news to the capital market and attracts more debt and supports the signalling theory. In another research, the growth of firms is positively related to the firm's leverage ratio for IT firms based on the econometrical analysis (Bhattacharjee et al., 2010). In contrast, Alipour et al. (2015) found a negative relationship between the sales growth and assets growth ratio as a measure for assessing growth opportunities and all measures of capital structures (STD, LTD, and TD), which is consistent with the trade-off theory. They stated that firms with higher future growth opportunities should use more equity financing.

However, J. Chen et al. (2014) performed OLS regression, which revealed that the growth opportunity has no significant impact on capital structure regardless of the leverage measures employed, while the robust estimator indicates a significant effect on the book value leverage ratio. They stated that firms with high growth opportunity have a high total leverage ratio but use less long-term debt. In comparison to larger firms, smaller firms leverage depends more on the level of growth within the industry. As the industry grows, larger firms undertake more leverage. This contradicts the trade-off theory where higher industry growth should decrease leverage. Most of these variables support the pecking order theory for smaller firms (Li & Stathis, 2017).

g) Liquidity

Previous research findings show positive and negative significant results regarding the effect of liquidity and capital structure. Using proxies for the current ratio, Alipour et al. (2015) found that the liquidity variable is positively related to short-term debt but negatively related to long-term debt. This is because liquid firms prefer internal resources for financial needs; the results are consistent with the pecking-order theory.

Similar to Ahsan, Wang, & Qureshi (2016), they found a negative association between liquidity and short-term debt and total debt whereas this association becomes positive with long-term debt. Kumar et al. (2017) also found that liquidity is negatively related to capital structure. Together, liquidity is captured by the current ratio and indicated that higher liquidity ensures positive working capital; therefore, funds can be saved for long-term investments. Thus, there is no need to borrow from other external sources.

h) SPP

A number of studies have examined the relationship between SPP and leverage. According to Alipour et al. (2015) there is a negative significant relationship between SPP and all measures of capital structure, e.g. short-term debt, long-term debt and total debt, which is consistent with the market timing theory. The reason is that the companies tend to prefer equity to debt when share prices are rising. However, the leverage ratio is inversely affected by the market-to-book ratio, term-structure of interest rates, and SPP (Antoniou et al., 2002).

Another study, by Yang, Lee, Gu, & Lee (2010), stated that capital structure and stock returns have opposite influences on each other. The results are consistent with the market timing theory, meaning that the higher the stock returns of firms, the lower the debt ratio

they have. This is because firms with high stock prices and high stock returns tend to use equity financing rather than debt financing. The previous study by Haron and Ibrahim (2012) also found that SPP has a negative significant impact on leverage. The authors also confirm, based on previous studies that firms prefer to issue equity to debt when share prices increase; the findings are also consistent with the market timing theory.

Antoniou's comprehensive review concluded that the capital structure decision is not only based on its own characteristics but also influenced by the environments and firm's operating traditions (Antoniou et al., 2002). Similarly, Haron & Ibrahim (2011) also had the same opinion as previous researchers in that the capital structure decision is not only the product of the firm's own characteristics but also the result of the institutional environment and corporate governance in which the firm operates. They also found that creditor rights, maintenance of legal reserves and law enforcement, directors' rights on borrowing, and risk assessment are essential determining factors of the capital structure decision of a firm (Bhattacharjee et al., 2010).

Previous investigations on target capital structure also identified that profitability, firm's size, and asset tangibility are the main determinants of the target capital structure. However, researchers reported that ownership structure had no significant effect on the target capital structure for Romanian firms. It has also been observed that the adjustment speed of size is high and indicates that it is costly for a firm to deviate from the target capital structure (Bhattacharjee et al., 2010). Moreover, the results also showed different directions and degrees of leverage influenced by the fixed-assets ratio, equity market premium, profitability, and effective tax rates. The firm's capital structure has been found to be close

to the target but has different speeds in all three countries by adjusting the firm's debt ratios (Antoniou et al., 2002).

Based on previous studies, the capital structure decision can be divided into two components: common and industry-based components. Profitability and tangibility of assets are the common factors, while industrial median, size, and non-debt tax shield are under the industry-based components in Asia. The results reveal significant evidence that large Asian companies pursue target capital structures, as in the US and Europe (Getzmann et al., 2014).

Table 2.4 shows the predicted signs and supporting theories for each explanatory variable on capital structure.

Table 2.4: Summary of Predicted Signs and Supporting Theories for Each Explanatory Variables on TCS

No.	Variables	Haron and Ibrahim (2012)		J. Chen et al. (2014)		Morri & Parri (2017)	
		Predicted Sign	Supporting theory	Predicted Sign	Supporting theory	Predicted Sign	Supporting theory
1.	Non-Debt Tax Shield	(-) (+)	TOT	(-)	TOT		
2.	Tangibility	(-) (+)	AT TOT	(-) (+)	TOT/AT POT	(+)	TOT/POT
3.	Profitability	(-) (+)	POT TOT	(-) (+)	POT TOT	(-) (+)	POT TOT
4.	Business Risk	(-)	TOT	(-) (+)	TOT POT	(-)	TOT/POT
5.	Firm's Size	(-)	TOT	(-) (+)	TOT POT	(+) (-/+)	TOT POT
6.	Growth Opportunities	(-) (+)	AT POT	(-) (+)	TOT POT	(-) (-/+)	TOT POT
7.	Liquidity	(-)	POT				
8.	Share Price Performance	(-)	MTT				

Notes: TOT = Trade-off theory; POT = Pecking-order theory; AT = Agency theory; MTT = Market timing theory.

2.3.2 Target Capital Structure (TCS)

Target capital structure can be defined as the mix of debt, preferred stock and common equity with which the firm plans to raise firm capital. Several recent studies investigated the relationship between target capital structure and speed of adjustment (Abdeljawad, Nor, Ibrahim, & Abdul, 2013; Arioglu & Tuan, 2014; Baxamusa & Jalal, 2014; Bonaimé, Öztekin, & Warr, 2014; Byoun, 2008; Chan & Chang, 2008; DeAngelo, DeAngelo, & Whited, 2011; Drobetz, Gounopoulos, Merikas, & Schröder, 2013; Drobetz & Wanzenried, 2006; R. Haron, Ibrahim, Nor, & Ibrahim, 2013; Razali Haron, 2014b; Hovakimian & Li, 2011). In an investigation on target capital structure, Haron and Ibrahim (2012) found that there exist target capital structure for Shariah compliant firms in Malaysia. The magnitude of speed of adjustment suggests a rapid adjustment towarfs target leverage thus supporting the existence of dynamic trade-off theory. Abdeljawad et al. (2013) found that overleveraged firms showed faster adjustment compared to underleveraged firms. Meanwhile, firms that were far from the target capital structure had faster adjustment than those close to the target.

This view is supported by Haron et al. (2013). They found a negative relationship between the speed of adjustment and distance from target leverage, which suggested fast adjustment for firms that were close to their target capital structures. The result was consistent with the dynamic trade-off theory. The researchers also observed that firms in Malaysia were under-adjusted because the required adjustment was below the target within a year. In addition, the research also showed that firm-specific factors (firm size and profitability) significantly affected the speed of adjustment for firms in Malaysia. The same authors also saw similar results in Thailand. Haron et al. (2013) also reported that property

firms practise target capital structures that influence firm characteristics, such as profitability, liquidity, asset structure, firm size, non-debt tax shield, and growth opportunity. Property firms are partially adjusted from time to time and support the dynamic trade-off theory, while the capital structure decisions of property firms are influenced by the pecking order and market timing theories.

Arioglu and Tuan (2014) found that the speed of adjustment was approximately 29% of estimation. The results of adjustment speed were in line with the prediction of the trade-off theory. The study suggested that firms must follow their target capital structures when their leverage ratios deviate from their targets. In the analysis of target capital structure, The study also found that the differences in leverage in the US were similar to the behaviour of firms in Catholic and Protestant countries outside of the US.

To further investigate the association between stock returns to repurchase announcements and capital structure policy, Bonaimé et al. (2014) carried out a series of experiments. The authors evaluated the benefit of the trade-off theory for under-levered firms on share repurchase to move towards an optimal debt ratio by repurchasing equity. Meanwhile, the market timing theory states that undervalued firms can benefit from mispricing by repurchasing equity. It has been conclusively shown that capital structure adjustments requiring repurchases of overvalued stock can be less beneficial and more costly.

In addition, Abdeljawad & Mat Nor (2017) found that leverage was adjusted at a slow speed for Malaysian firms of 12.7 percent annually and that the rate increased to 14.2 percent when the timing variable was accounted for. The authors also stated that the SOA is significantly higher and the timing role is lower for overleveraged firms compared to

underleveraged firms. Overleveraged firms seem to find less flexibility to time the market as more pressure is exerted on them to return to the target regardless of the timing opportunities because of the higher costs of deviation from the target leverage. Underleveraged firms place lower priority on rebalancing towards the target compared to overleveraged firms as the costs of being underleveraged are lower, and, hence, these firms have more flexibility to time the market. They reported the analysis from previous researchers that SOA varies across firms directly with the variation in the costs and benefits of being at the target, for instance the higher probability of distress leads to faster adjustments since it implies that the cost of deviation is high (Flannery and Hankins, 2007; Clark et al., 2009; Dang et al., 2014). Thus, overleveraged firms face higher costs of deviation and should adjust faster compared to underleveraged firms.

Chan and Chang (2008) found that firm-specific stock return variation is a significant adjustment towards target capital structure. It supports the trade-off theory on financing decisions for Taiwanese firms. Moreover, high or low firm-specific stock return variation supports the pecking order or market timing theory. The results suggested that firm-specific stock variation provide an understanding of capital structure decisions. Corporate financing decisions cannot be separated from the efficiency of capital markets. According to Byoun (2008), most of the adjustments occurred when firms have higher or lower debt than the target with financial surplus or deficit. The results suggested that firms will move to the target capital structures when they experience financial deficit or surplus.

It may however be noted that most of the studies were aimed at target capital structure on total debt to total equity (TDTE) and total debt to total assets (TDTA). To our knowledge, no research has been carried out for the target capital structure on total

conventional debt to total assets (TCDTA) and total Islamic debt to total assets (IDTA). Hence, it is necessary to do deep research on the target capital structure of TCTDA and IDTA.

2.4 The Existence of Target Dividend Policy (TDP)

Many previous researchers have claimed that lagged dividend, earnings per share, market capitalization, liquidity, investment opportunities, size of firm, sales growth, leverage, and growth opportunities are important factors that affect dividend policy (Al-Najjar, 2009; C. Arko et al., 2014; Ashraf & Zheng, 2015; Bushra & Mirza, 2015; Yusof & Ismail, 2016; Al-Kayed, 2017; Neves, 2018; Utami & Gumanti, 2019). Thus, the following analysis discusses in detail the firm specific factors of dividend policy and target dividend policy.

2.4.1 Firm Specific Factors of TDP

The following analysis discusses in detail about the firm specific factors of dividend policy gathered from previous researchers.

a) Lagged dividends

In analysis of lagged dividend, C. Arko et al. (2014) stated that the lag of dividend is one of the important factors that affects the dividend policy of firms. This view is supported by Al-Kayed (2017), who writes that lagged dividend yield is a significant factor affecting dividend payout; the result is in line with Al-Ajmi and Abo Hussain (2011), and Alzomaia and Khadhiri (2013). Moreover, the sign of lagged dividend is positive, which is in line with the Lintner (1956) model. Similarly, Abdulkadir et al. (2016) found that dividend is

in accordance with Lintner (1956) in that payout decisions in the previous year have a significant influence on the current year's decision to pay or not to pay dividend.

Commenting on lagged dividend, Booth & Zhou (2017) argued that dividend changes are positively correlated with lagged and contemporaneous earnings changes, but there is weaker support for changes in future earnings. However, a problem with the empirical specification is the difficulty in extracting the change in future permanent earnings from current and lagged earnings. Together, these studies outline that there is a positive significant relationship with dividend. The increase in past dividend tends to increase in the future dividend payment.

b) Earnings per share

For earnings per share, Yusof & Ismail (2016) reported a positive significant result for earnings on dividend policy. The results imply that an increase in company profits leads to the payment of higher dividend to shareholders and is consistent with the signalling theory. They also stated that higher dividends are paid to shareholders when earnings increase, which signals good firm performance. This is supported by Neves (2018) who revealed that a firm's earnings has a positive relationship with the payout ratio; the same results as found by Lintner (1956). Neves added that the payout ratios increased when earnings rise due to reaching a stable pattern of dividends and to avoid dividend cuts.

In addition, Kighir, Omar, & Mohamed (2015) showed the significant impact of prior year dividends, current, and prior year earnings on dividends in three out of the five models. The impact is more from prior year dividends, followed by current earnings and then prior year earnings. They stated that Malaysian non-financial firms consider current and prior year earnings while taking dividend payout decisions. The study by C. Arko et al. (2014)

indicated that companies with higher volatility in their earnings are less capable of sustaining a high level of dividend and thus avoid committing themselves to such levels of dividend. In summary, earnings per share become an important factor that affects the dividend policy because an increase in earnings encourages an increase in dividend.

c) Market Capitalization

There have been several studies in the literature reporting the relationship between market capitalization and dividend policy. Utami & Gumanti (2019) indicated that market capitalization negatively significantly affects dividend policy. This is consistent with Ashraf & Zheng (2015), who showed that market capitalization has a negatively significant effect on dividend for banks. These results revealed that banks are less likely to pay dividends in growing as well as in developed countries.

However, these findings contradict those of Manneh and Naser (2015) who found that market capitalization has a positive and significant effect on the dividend payment ratio. In addition, Singhania (2012) also found that market capitalization is negatively correlated with dividend yield. This indicates that the negative and significant correlation between dividend yield and market capitalization suggests the ability of lower market capitalization firms to pay more dividends.

d) Liquidity

According to Al-Najjar (2009), the research revealed that there is no evidence of a relationship between assets liquidity and dividends' payments. Al-Kayed (2017) also found that liquidity is not a significant factor of Islamic banks' dividend payouts. These results are consistent with Harish Kumar Singla (2018), whose research revealed that unstable

earnings, tangibility, liquidity, growth opportunities, leverage, and taxation have a positive but insignificant influence, whereas age of the firm and institutional holding have an insignificant negative influence. This indicates that liquidity is positive but the result is insignificant.

Despite prior evidence on liquidity and dividend policy, Pieloch-Babiarz (2017) stated that the average financial liquidity of dividend payers was higher than the average liquidity in the sector. It is worth noting that the dividend payers were more liquid than the companies repurchasing shares, the companies conducted payout policy in both forms of cash transfer, as well as the non-payers.

e) Investment opportunities

Previous studies have reported that investment opportunities have a positive significant effect on dividend policy (Yusof & Ismail, 2016). The results indicated that higher investment opportunities pay higher dividends to their shareholders; the findings are consistent with Al-Malkawi (2007), Juma'h and Pacheco (2008), and Foroghi et al. (2011). In contrast, they stated that the result is contrary to the findings of Ahmed and Javid (2009), and Subramaniam and Devi (2011) due to the possibility that firms with high investment opportunities have access to other external financing options and do not depend on internal earnings to finance future investment. In addition, Ardestani, Rasid, Basiruddin, & Mehri (2013) showed that investment opportunities have a statistically significant and positive relationship with dividend payout. This suggests that the companies with a positive relationship expected growth opportunities and are eager to payout dividends.

Similarly, Kuruppuarachchi & Weerasinghe (2019) also found that investment opportunities have a negative impact on dividend yield. Another study, by C. Arko et al.

(2014), found that firms with higher investment opportunities frequently pay dividends in order to make their equity issues more attractive. Moreover, firms with higher market-to-book value tend to have good investment opportunities, and thus would retain more funds and record lower dividend payout ratios (Amidu & Abor, 2015). This is similar to the study of Neves (2018) on good investment opportunities, in which investor sentiment positively impacts the payout ratio of those firms with valuable investment opportunities, for which investors' manifest stronger expectations about receiving higher dividends.

f) Firm's size

Yusof & Ismail (2016) reported that firm size and large shareholders had a positive significant influence on dividend policy. This result is consistent with the agency cost theory, in which the larger the firm and the greater the percentage shares owned by large shareholders, the higher the dividend payment to shareholders. The above finding is consistent with the study by Neves (2018). Neves (2018) examined the positive coefficient on size according to which larger firms pay higher dividends. In addition, Amidu and Abor (2006) also showed that size is found to be positively and statistically significantly related to dividend policy in all the countries under their study. In line with Fama and French (2001), they stated that larger firms are more likely to pay dividends, which showed that larger firms are more profitable and have more cash reserves, and, as such, have a higher capability to pay dividends.

However, a number of studies show that firm's size is negatively significant with dividend policy. The study by C. Arko et al. (2014) found that size has a negative relationship with dividend payouts. The finding indicates that larger firms payout lower amounts of their earnings in dividends, while smaller firms have higher payout ratios. The

research finding by Thakur & Kannadhasan (2018) also found that size is negatively related to the dividend pay-out ratio in OLS estimation.

g) Sales growth

There have been several studies in the literature reporting the results on sales growth and dividend. Bushra & Mirza (2015) found that growth in sales is positively related to dividend yield, which is an increase in sales leads to higher profitability and higher dividend payments. However, interestingly, this is contrary to the study conducted by Amidu & Abor (2015), who found that growth in sales has a statistically significant and negative association with dividend payout ratios. The finding indicated that growing firms require more funds in order to finance their growth, and, therefore, would typically retain a greater proportion of their earnings by paying low dividend.

With the same results, Demirgüneş (2015) also found a negative relationship between the dividend payout ratio and sales' growth. This is because firms that are either experiencing or expecting higher growth rates may need to keep dividend payouts lower to avoid the costs of external financing. In a different study, Yusof & Ismail (2016) examined the relationship between sales growth and dividend; the findings show that there is no significant relationship between sales growth and dividend.

h) Leverage

Numerous studies have attempted to explain the relationship between leverage and dividend policy. C. Arko et al. (2014) found a negative relationship between leverage and dividend policy, whereby companies with a higher debt ratio have a lower probability of paying dividends. Moreover, interest and principal payments, which are made by

companies with debt in their capital structure, would reduce the cash available for dividend payments. Thus, highly levered firms have a lower probability of paying dividends, while companies with lower leverage ratios have a higher probability of paying dividends. The finding is similar to the study by Yusof & Ismail (2016).

The debt level significantly affects the dividend policy, which means that higher levels of debt lead to lower dividend payments to shareholders. They indicated that companies with huge debts have a greater obligation to the creditors in terms of debt repayment and interest charged. Abdulkadir et al. (2016) also stated that leverage shows a negative relationship with dividend; firms are less likely to pay dividends when the debt level is high. Thus, there is less likelihood to pay dividends in order to reduce raising more external finance, which will lead to an increase in the transaction costs. Firms with more tangible fixed assets are more leveraged, and, consequently, maintain larger payout ratios as a way of controlling the new funds (Neves, 2018). Although Thakur & Kannadhasan (2018) found that financial leverage does not have a significant influence on dividend policy, they stated that the previous studies have shown positive and negative significant relationships between leverage and dividend (Faccio et al., 2001; Gugler and Yurtoglu, 2003); however, their data does not show such a relationship.

i) Growth opportunities

Previous research has indicated that growth opportunities have a negative influence on dividend policy (C. Arko et al., 2014; Abdulkadir et al., 2016). The research study by C. Arko et al. (2014) found that growth has a negative and statistically significant relationship with the decision to pay or not to pay dividends in Ghana. The findings indicated that a company with higher growth opportunities has a lower probability of

paying dividends. This is because companies with more profitable investment avenues are more likely to retain their earnings and invest in such ventures instead of paying dividends. Thus, with the prevalence of growth opportunities, the agency costs are reduced, and, therefore, dividend loses its importance in controlling the agency costs.

Abdulkadir et al. (2016) also found that growth opportunities show a negative significant influence on dividend. The significance of growth opportunities is consistent with Fama and French (2001). In contrast, the study by Thakur & Kannadhasan (2018) indicated that the variable of growth opportunities shows a positive relationship with the dividend. Together these studies provide important insights into the agency cost problem being reduced in that higher growth opportunities lead to lower paying dividends.

2.4.2 Target Dividend Policy (TDP)

A target payout ratio is a calculation of the proportion of the profits of a corporation that it would like to pay out as dividends over the long-term to shareholders. In determining their target dividend payout ratio, companies are cautious in order to be able to sustain a stable dividend level while maintaining adequate resources to expand and/or run the company efficiently. Allen (1992) stated that a target payout company is defined as one that has a strategy of trying to pay a fixed proportion of available earnings as dividends. The study used Lintner (1956) model and suggested that two dominants factors that influence target dividend payouts are a desire to maintain stale dividends and the company's recent dividend history.

Factors thought to influence the target dividend policy have been explored in several studies. In an analysis of target dividend policy, Benavides et al. (2016) found that the target

dividend payout ratio was positively related to governance indicators at the country level. For high governance countries, the speed of adjustment on dividend to changes in earning was low. Hence, a firm's dividend is smooth in countries with a higher governance score. Based on the pecking order and trade-off theories, the dividend payout is positively related to profitability and negatively related to past indebtedness and investment opportunities. They also reported that there is no evidence associated with the lifecycle theory and illiquidity effects on dividend levels.

Ahmed and Javid (2009) examined the dynamics and determinants of dividend payout policy. They analysed data from 320 non-financial firms listed on the Karachi Stock Exchange from 2001 until 2006 and concluded that setting dividend payments depended on the current earnings per share and past dividends per share. The listed non-financial firms had a high speed of adjustment and low target payout ratio and had instability in smoothing their dividend payments. It was shown that ownership concentration and market liquidity were positively related to dividend payout policy, while investment opportunities and leverage negatively affected dividend payout policy. Moreover, market capitalisation and firm size had a negative impact on dividend payout policy.

In another investigation on the factors affecting the target dividend policy, Al-Najjar (2009) reported that the dividend policy for developing countries, such as Jordan, was influenced by many factors similar to that of developed countries, such as leverage ratio, institutional ownership, profitability, business risk, asset structure, growth rate, and firm size. The study finally concluded that Jordanian firms rapidly adjusted dividend payouts to the target ratio compared to other developed countries. It was shown that the Lintner model was appropriate for Jordanian data. Zurigat (2011) stated that Jordanian firms have a target

dividend payout ratio with the rate of adjustment. In addition, they found that dividend adjustment was not only asymmetric for below and above the target dividend adjustments but also asymmetric for below and above the target dividend adjustment with positive and negative earnings.

To further investigate the target dividend payout ratio, Demirgüneş (2015) carried out a series of experiments. The sample analysed listed firms operating in the non-metallic product manufacturing industry from 2002 until 2012 using panel autoregressive distributed lag analysis. It was found that, in the long run, factors relating to profitability, growth, and corporate taxation will have a negative significant effect on target dividend payout ratio, while risk and market expectations will have a positive significant effect on the target dividend payout ratio. In the short run, profitability had a positive significant effect on the target dividend payout ratio.

Regarding the deviation from target dividend payout, recently, Jacoby, Li & Lu (2018) found that the stock return drops as the dividend deviation increases. The authors stated that under-paying firms have greater exposure to future financial risk and that investors require a risk premium to hold the stocks.

2.5 Share Price Performance (SPP)

There have been several studies in the literature reporting the effect of the frm specific factors (capital structure, dividend policy, profitability, company's efficiency, and firm's size) on SPP. Researchers have studied the effect of capital structure on SPP (Yang, Lee, Gu, & Lee, 2010; Ahmad, Fida, & Zakaria, 2013; Chandra et al., 2019); dividend policy on SPP (Hussainey, Mgbame, & Chijoke-Mgbame, 2011; Allen and Rachim, 1996; Lashgari

& Ahmadi, 2014; Zainudin, Mahdzan, & Yet, 2018); profitability on SPP (Chandra et al., 2019; Ahmad et al., 2013; Yang et al., 2010); company's efficiency on SPP (Lyroudi 2018; Din, 2017, Alexakis, Patra, & Poshakwale, 2010); and firm's size on SPP (Chandra et al., 2019; Zainudin et al., 2018; Shah & Noreen, 2016; Profilet & Bacon, 2013). The detailed analysis on the observable variables indicated by previous researchers that is associated with SPP is stated below.

2.5.1 Capital Structure and SPP

Yang et al. (2010) investigated the influence of stock returns on capital structure and capital structure on stock returns. They demonstrated that the capital structure and stock returns are interdependent on each other. They found that capital structure and stock returns have negative influences, but when stock returns become dependent variables, the results show that capital structure has a positive influence on stock returns. The results of the opposite influence between capital structure and stock returns means that the higher the stock returns of firms, the lower the debt ratio. The results are consistent with the market timing theory because firms with high stock prices and high stock returns tend to use equity financing rather than debt financing. However, the results of the positive influence between capital structure and stock returns show that the more the firms use debt, the higher the stock returns they provide, which results from the leverage effect and leverage risk compensation. In contrast, the study by Chandra et al. (2019) indicated that capital structure has no effect on the stock returns of companies listed on the compass index 100 in Indonesia. They stated that their results are not in line with the research conducted by Khan et al. (2013) who found a positive effect of capital structure on stock returns.

This research is also not in line with the research on manufacturing companies conducted by Abdullah et al. (2015) who showed that capital structure had a negative effect on stock returns. This finding explains that investors are not too concerned about the company's capital structure policy. With the same objectives, Ahmad et al. (2013) conducted analysis on the co-determinants of capital structure and stock returns for 100 non-financial firms in Pakistan using the generalized method of moments (GMM) model. They found that there is a statistically significant negative relationship between leverage and stock returns. The results are consistent with Chen and Chen (2011), who stated that firms with greater leverage face a higher risk of bankruptcy, and, at the same time, investors feel more anxious when investing in the stocks of highly leveraged firms and investor behaviour can cause the value of the stock to fall.

2.5.2 Dividend Policy and SPP

The understanding of the impact of a firm's dividend policy on SPP is important and still an unresolved issue. Several studies in the literature have examined the issue in great depth. Hussainey, Mgbame, & Chijoke-Mgbame (2011) indicated that there is a significant negative relationship between the payout ratio of a firm and the volatility of its stock price, and a negative relationship between dividend yield and the volatility of stock price. The results are in line with the findings of Allen and Rachim (1996), but the findings on payout ratio are contrary to the findings of Baskin (1989). The overall findings suggest that the higher the payout ratio, the less volatile a stock price will be and that the payout ratio is the main factor affecting of the volatility of the stock price. The research study by Lashgari & Ahmadi (2014) also found that there is a significant negative effect between the dividend

payout ratio of a firm and the share price volatility for companies in Tehran estimated using the fixed effect model.

Similarly, Hashemijoo, Mahdavi Ardekani, & Younesi (2012) showed that dividend yield and size have the most significant impact on share price volatility with a negative relationship for 142 consumer products companies listed on the main market of Bursa Malaysia. They stated that the strong significant negative association between price volatility and dividend yield is in line with Baskin (1989), whose results reported that dividend yield has the strongest effect on share price volatility. However, the finding contradicts Allen & Rachim (1996) who found that share price volatility and dividend yield are not associated, but that share price volatility and size are positively associated.

Moreover, they also indicated a significant negative relationship between price volatility and dividend payout, which is consistent with Baskin (1989), and Allen & Rachim (1996). Shah & Noreen (2016) found a significant negative relationship between the stock price volatility and dividend policy variables, i.e. dividend payout and dividend yield. This is consistent with the regression using Ordinary Least Squares (OLS) of Profilet & Bacon (2013), which showed that the payout ratio and the stock price volatility produced opposite results, which is the higher the firm's dividend yield, the lower its stock price volatility. This result supports the findings presented in Al-Malkawi's Signalling Hypothesis and further implies the importance of dividend cash flow as a signalling device to stockholders.

However, a number of studies show that a significant relationship does exist, although the findings are somewhat contradictory to the above findings. Kheradyar, Ibrahim and Mat Nor (2011) found that dividend yield, earnings yield, and book to market ratio were significantly positively related to stock returns of firms listed on the Malaysia stock

exchange. They stated that the book to market ratio had the highest explanatory power. They estimated the result using the fixed effect method of two independent variables (DY and B\M) rather than the random effect method or common constant method, because the omitted variables, which differ between cases but are constant over time, are controlled.

In addition, according to Ali, Sharif, & Jan (2017), dividend per share and retention ratio have an insignificant relationship with share market prices, but dividend payout ratio has a significant positive relationship with share prices. The result is consistent with the Bird-in-the-hand theory, which suggests that owners give preference to a dollar of estimated dividends over a likely dollar of capital gains. They suggest that firms in the sample should regularly pay dividend as it will cause an upward movement in the stock market prices.

Recently, Zainudin, Mahdzan, & Yet (2018) also found that there is a significant negative relationship between stock price volatility and dividend yield, and between stock price volatility and payout ratio. The overall results suggest that the dividend yield and payout ratio may influence the stock price volatility. They stated that the results contradict Hashemijoo et al. (2012), whose results did not show a significant relationship between stock price volatility and dividend policy in Malaysian consumer products firms. Hashemijoo et al. (2012) found a significant negative relationship between stock price and dividend yield and between stock price volatility and payout ratio. This is because dividend policies implemented across different industries tend to vary; hence, it is not surprising that different results are attained for Malaysian industrial product firms. Firms that pay out high dividends are usually more mature, profitable, stable and less risky. Lower risk translates to less volatile price movements of stocks (Baskin's, 1989).

2.5.3 Profitability and SPP

Several studies have revealed that there is a positive significant relationship between profitability and share price. Yang et al. (2010) reported that firms with higher profitability earned higher returns, and, thus, a positive relation between profitability and returns is expected. As for stock returns, profitability is a significant positive influence on stock returns, which is consistent with the findings of Haugen and Baker (1996). The higher the profitability, the higher the stock returns. The results are also in line with Ahmad et al. (2013) who found that profitability has a significant positive effect on stock returns, which means that high profitability firms provide a high return on their stock in Pakistan.

Recently, Chandra et al. (2019) found that profitability has a significant positive effect on stock returns, which is consistent with the research conducted by Ahmad et al. (2013) on the Karachi Stock Exchange. They revealed that increasing company profits can increase stock returns. This means that investors are still considering company profits in deciding stock transactions. Another study by Ali, Sharif, & Jan (2017) reported that profit after tax has an insignificant relation to stock prices, and that earnings per share have a positive significant relation to stock prices. They also found that there is a negative significant relation between return on equity and share prices. It is recommended that firms should regularly pay dividend as it will cause an upward movement in the stock market prices. Whereas profit retention by firms will result in a decrease in the value of the stock market prices.

2.5.4 Company Efficiency and SPP

Researchers have studied the effect of company's efficiency measures as assets turnover ratio on SPP. According to Din (2017), the results showed that there is a negative statistically significant relationship between the assets turnover ratio and stock returns. The result means that for one unit increase in asset turnover ratio, the stock returns will decrease by 0.2580 units because of the reduction in sales to generate assets. He stated that the negative impact of assets turnover ratio on stock returns is due to slightly weak working capital management and high labour cost.

In contrast, the study by Alexakis, Patra, & Poshakwale (2010) found that asset turnover is significant and has a positive relationship with stock returns. The results are in line with Talebian and Daghbandan (2015) who also found a positive relation between assets turnover and the firm's performance. However, Dzikevicius & Saranda (2011) found no significant relation between assets turnover and stock returns. The non-significant finding is consistent with the recent findings of Lyroudi (2018), who stated that there was no evidence of a statistically significant strong linear relationship between the assets turnover ratio and stock returns.

2.5.5 Firm Size and SPP

For SPP, Profilet & Bacon (2013) found that dividend yield and size related negatively to the stock price volatility. They revealed that the negative correlation found between firm size and stock price volatility supports the findings made by Hussainey et al. (2011) who found that as the market capitalization of a company increased, the volatility of their corresponding stock price decreased. The results also support the idea that large

dividend paying stocks are, in fact, less risky than stocks that do not payout a dividend. Moreover, another study, by Shah and Noreen (2016), also found that firm size and long-term debt are negatively related to stock price volatility.

The results are consistent with Hussainey, Oscar Mgbame, & Chijoke-Mgbame (2011) who found that size had a significant negative relationship with price volatility. They suggested that the larger the firm, the less volatile the stock price is. On the other hand, they showed a significant positive relationship with price volatility, thereby suggesting that the stock price will be more volatile. Yang et al. (2010) indicated that small firms tended to earn higher average stock returns than large firms (Banz's "size effect", 1981). The results, consistent with Fama and French (1992), stated that small firms may suffer a long earnings depression that bypasses big firms, thereby suggesting that size is associated with a common risk factor that leads to the negative relationship between size and stock return. In short, small firms may undertake more risks and thus should have higher stock returns in return.

Furthermore, firm's size is negatively associated with stock price volatility because large companies are usually more diversified, mature, and have a strong market position (Zainudin et al., 2018). Moreover, large companies are normally financially sound, which makes the stocks less risky and less volatile. However, they found that the relationship between leverage and stock price volatility is not statistically significant. Recently, Chandra et al. (2019) discussed in their study the negative effect of firm size on stock returns found by Banz (1981). This is because small companies tend to provide higher stock returns compared to large companies. The results are consistent with Rezaei and Habashi (2012).

In contrast, Acheampong et al. (2014) conducted their research on companies in the Ghana Stock Exchange and found that small companies tend to provide lower stock returns than large companies. This means that firm size has a positive effect on stock returns. The results of this study are consistent with the research conducted by Abdullah et al. (2015), and Chandra and Idrus (2015). Ahmad et al. (2013) found differences in the results in their study in that firm size is not significant, which means that the variable has no effect on stock returns and a result that goes against the theoretical expectation that firm size affects stock returns.

2.6 Relation between SGR and SPP

The role of SGR needs to be considered as it is a future-oriented measure of firm performance that may have a significant impact on a firm's stock price (Arora et al., 2018). Lockwood and Prombutr (2010) investigated the association between sustainable growth and stock returns for the duration of 1964–2007 using monthly stock prices. In the study, they obtained significant results using the Time-Series Regressions, Cross-Sectional Regressions, and Firm-Level, and Regression Tests. They found that high sustainable growth firms tended to have low default risk, book-to-market ratios, and subsequent returns. In addition, the net profit margin is the major factor of subsequent returns compared to each SGR component. SGR is maintained after controlling asset and capital expenditure growth.

The sustainable growth effect is attributable to risk and not mispricing. The results are consistent with a discussion by Fama and French (1995) on rational pricing. The authors found that low-profit firms tended to have high BE/ME ratios and also high required

returns. In this case, the authors mentioned that low profitability reflects high distress risk, which, in turn, should be related to high required returns. Moreover, sustainable growth rises for value firms, perceived risks fall, required returns fall, and valuations increase relative to growth firms. Raisch and von Krogh (2007) confirmed the growth corridor relevance for managerial practices; companies that grew within the limits set by their growth corridor outperformed their peers that did not. The so-called "smart growers" delivered an average return to shareholders of nearly double the rate of slower or faster-growing companies. However, more than 75% of the overall group failed to operate within this zone and paid a price one way or another in rising debt, declining profit margins, or falling share prices.

The SGR of an acquiring firm is an important factor of the cross-sectional variation in the merged entity's long-term operating and stock performance (Olson & Pagano, 2005). To get accurate results, Olson and Pagano (2005) used the mergers of US publicly traded bank holding companies during the period of 1987–2000. The most economical significant factors of the merged bank's abnormal stock return performance are the acquired bank's estimated SGR prior to the acquisition, as well as the post-acquisition changes in this growth rate, and the bank's dividend payout ratio.

2.7 SGR as a Mediator

The increased costs are not limited to the usual cost variety but also include the impact on the share price of employing what the management believes to be excessive debt, or distributing what is believed to be too little in dividends (Higgins, 1977). In particular, excessive debt and pay less dividends can have an impact on SPP. Thus, managing the

company's financial and operating activities (capital structure, dividend policy, profitability, assets efficiency and firm size) can increase its value and SPP. Companies believe the outcomes attained from managing the financial and operating activities can help the management to increase the value of the companies and SPP.

SGR is one of the most studied aspects in relation to the improvement of a firm's performance, and managing operating and financial constraints (Higgins, 1977; Platt, Platt & Chen, 1995; Olson & Pagano, 2005; Ashta, 2008; Fonseka, Ramos & Tian, 2012; Channon & McGee, 2015; Hafid, 2016; Arora, Kumar & Verma, 2018). Many previous studies analysed the relationship between the independent variables, such as capital structure (Escalante, 2009; Higgins, 1977; Fonseka, Ramos & Tian, 2012; Arora, Kumar & Verma, 2018; Higgins, 2007), dividend policy (Eldomiaty et al., 2012; Lee et al., 2015; Liow, 2010; Olson & Pagano, 2005), profitability (Liow, 2010; Hafid, 2016; Olson & Pagano, 2005; Platt, Platt & Chen, 1995; Arora, Kumar & Verma, 2018), and asset efficiency (Hafid, 2016; Platt, Platt & Chen, 1995; Eldomiaty et al., 2012; Arora, Kumar & Verma, 2018).

Besides, there are several studies that investigated the relationship between capital structure (Welch, 2004), dividend policy (Hussainey et al., 2011; Hashemijoo, Mahdavi-Ardekani & Younesi, 2012; Khan, 2011; Sharif et al., 2015), profitability (Buzzell et al., 1975), and asset efficiency (Beccalli, Casu & Girardone, 2006), and SPP. Moreover, Lockwood and Prombutr (2010) studied the relationship between SGR and stock returns. Reviews of the literature indicate that recent studies have focused on investigating the relationship between capital structure, dividend policy, profitability and asset efficiency (independent variables), and SPP (dependent variable). Recent studies have also identified

the relationship between SGR and stock returns. However, no studies have studied SGR as a factor that influences SPP. This research supports the signalling theory. This study will examine the relationship between the factors that influence the SGR (capital structure, dividend policy, profitability, and asset efficiency) and SPP.

The inclusion of the third variable (the so-called mediator variable), SGR, might influence the relationship of the two variables; that is, the predictor X (firm specific factors) and the outcome variable Y (SPP). For instance, a higher or lower SGR can increase SPP, and the firm may also consider the use of a higher or lower debt in order to enhance the firm's financial performance and shareholder wealth. To the best of my knowledge, only Sutjiati (2017) had investigated the mediating effect of SGR between investment in fixed assets and dividend policy with company value (price book value). She found that simultaneous investment in fixed assets and DPR had a significant and negative effect on SGR while individually/partially, investment in fixed assets does not affect SGR but DPR has a significant effect on SGR. Moreover, simultaneous investment in fixed assets, DPR, and SGR has a significant effect on PBV, while individually/partially, investment in fixed assets, DPR, and SGR all show a significant effect on PBV.

Due to the potential ability of SGR to act as a mediator, this study examines the mediating effect of SGR on the relationship between firm specific factors (capital structure, dividend policy, profitability, company efficiency and firm size) and SPP on Malaysian Shariah-compliant firms.

2.8 Threshold Analysis

Regarding the threshold analysis, most researchers, such as Nieh et al. (2008), Lin & Chang (2009), Cheng et al. (2010), Cuong and Canh (2012) and Abd. Halim Ahmad & Nur Adiana Hiau Abdullah (2013) used an advanced panel threshold regression model based on Hansen (1999). Nieh et al. (2008) investigated the existence of an optimal debt ratio for the electronic listed firms in Taiwan from 1999 to 2004. The research found that there is a single threshold effect of debt ratio on firm value when return on equity (ROE) is used as a proxy for firm value. However, the combination of ROE and earnings per share (EPS) triple threshold estimation shows that the appropriate debt ratio range for listed electronic firms in Taiwan should not be more than 51.57 percent or less than 12.37 percent.

With the same country of research in Taiwan, Lin & Chang (2009) examined whether there is a threshold debt ratio in the relationship between debt ratio and firm value. The research found that when the debt ratio is less than 9.86 percent, firm value increased while when the debt ratio is between 9.86 percent and 33.33 percent, firm value also increased.

Lin & Chang (2009) concluded that there must be a threshold debt ratio of less than 33.33 percent at which point firm value continues to increase. Moreover, Cheng et al. (2010) found that a triple threshold effect does exist and shows an inverted-U correlation between leverage and firm value. In the same objective, Cuong and Canh (2012) proved that a double threshold effect exists between debt ratio and firm value. The results show that firm value has a positive coefficient when the debt ratio is less than 59.27 percent, but a negative coefficient when the debt ratio is more than 94.60 percent. Also, an insignificant result for a debt ratio between 50.27 percent and 94.60 percent, where the result indicated that there is no relationship between debt ratio and firm value.

Abd. Halim Ahmad & Nur Adiana Hiau Abdullah (2013) investigated the effect of leverage on Malaysian listed firms' value and the optimal level of debt at which a firm could maximize its value. The results found that firm value increased when the debt ratio is less than 64.33 percent and not significant for a debt ratio of more than 64.33 percent. Additional debt beyond the threshold level does not add to a firm's value. Thus, the issue of threshold debt ratio was important for companies, as it was observed that either debt beyond the threshold level can have a positive or negative impact to the SGR.

2.9 Shariah Compliant Companies

Many Shariah-compliant firms in Malaysia have been screened based on the benchmarks specified by the SC. The screening methodology was revised by the SC in 2013. It not only covers operating activities but also the financing and investing aspects of listed firms' business operations (refer to Table 2.5). The financial ratios are new benchmark indicators in the screening process for firms to be listed as Shariah compliant. The financial ratio benchmarks include cash over total assets and debt over total assets. Cash only includes those placed in conventional accounts and instruments, whereas cash placed in Islamic accounts and instruments is excluded from the calculation.

Meanwhile, debt only includes interest-bearing debt whereas Islamic debt or financing or *Sukuk* is excluded from the calculation. Both ratios, which are intended to measure *riba* and *riba*-based elements within a company's balance sheet, must be lower than 33 per cent.

Firms listed as Shariah compliant must follow the requirements set by the SC. The first stage of the screening is that the activities of the firm must not involve prohibited

elements. According to the SAC of the SC, there are eight basic primary criteria that will be screened in the first stage. These eight criteria are:

1) financial services based on *riba* (interest),
2) gambling and gaming,
3) manufacturing or selling of non-halal or related products,
4) conventional insurance,
5) entertainment activities that are non-permissible according to Shariah,
6) manufacturing or selling of tobacco-based products or related products,
7) stockbroking or share trading in non-Shariah-compliant securities, and
8) other activities deemed non-permissible according to Shariah.

Based on the eight criteria given, firms involved in those business activities are disqualified from being considered as Shariah compliant firms. Then, other firms can proceed to the second stage if they passed the first stage. The second stage of the screening is based on the financial requirements, cash over total assets and debt over total assets must be less than 33 per cent.

In light of these changes, relevant analysis is undertaken concerning the impact of the revised screening methodology (Zainudin et al., 2014; Najib et al., 2014; Muhammad, 2015; Suffian et al. (2015); Md. Hashim et al., 2017). Zainudin et al. (2014) found that companies with a high level of conventional debt were affected due to no screening previously based on the total conventional debt of the company. This is in line with Muhammad (2015) who mentioned that after the revised screening methodology, the status of a firm was affected due to (i) companies' mixed activities, which were previously assessed under the 5, 10, 20, and 25 per cent benchmarks, while, currently, the firm

activities were assessed under the 5 and 20 per cent benchmarks, and (ii) companies with high conventional debt were affected, as previously there was no screening based on the total conventional debt of the companies.

Table 2.5: The Changes in the Shariah Screening Methodology

Quantitative Assessment	Current Shariah Screening Methodology And Activity	Revised Shariah Screening Methodology And Activity
Business activity benchmarks	• 5 percent Conventional banking, Conventional insurance, Gambling, Liquor and liquor-related activities, Pork and pork-related activities, Non-halal food and beverages, Shariah non-compliant entertainment, and other activities deemed non-compliant according to Shariah. • 10 percent Interest income from conventional accounts and instruments, tobacco and tobacco-related activities, and other activities deemed non-compliant according to Shariah. • 20 percent Rental received from Shariah non-compliant activities, and other activities deemed non-compliant according to Shariah. • 25 percent Hotel and resort operations, Share trading, Stockbroking business, and other activities deemed non-compliant according to Shariah.	• 5 percent Business activities included conventional banking, conventional insurance, gambling, liquor and liquor-related activities, pork and pork-related activities, non-halal food and beverages, Shariah non-compliant entertainment, interest income from conventional accounts and instruments, tobacco and tobacco-related activities, and other activities deemed non-compliant according to Shariah. • 20 percent Business activities included hotel and resort operations, share trading, stockbroking business, rental received from Shariah non-compliant activities, and other activities deemed non-compliant according to Shariah.
Financial ratio benchmarks		> 33 percent • <u>Cash over Total Assets</u> Cash will only include cash placed in conventional

		accounts and instruments, whereas cash placed in Islamic accounts and instruments will be excluded from the calculation. • <u>Debt over Total Assets</u> The debt will only include interest-bearing debt whereas Islamic debt/financing or *sukuk* will be excluded from the calculation. Both ratios, which are intended to measure *riba* and *riba*-based elements within a company's balance sheet, must be lower than 33%.

Source: Securities Commission Malaysia (2014)

A research review of the literature by Suffian et al. (2015) indicated that some of the Shariah-compliant firms have a high risk of having higher debts. Taken together, these results suggest that Shariah-compliant firms should minimise their risk or uncertainties. Regarding the Shariah screening criteria, Najib et al. (2014) revealed that the inclusion of financial ratio benchmarks and restructuring of the business activity benchmarks enhanced the robustness of the screening methodology for listing as a Shariah-compliant company. This is aligned with Md. Hashim et al. (2017) who stated that the formula used for the financial ratios in the Shariah-compliance criteria are taken based on the best practice approach, which may or may not concur with most of the current leading Shariah stock screening providers. At the same time, the robustness of the screening methodology can strengthen the competitiveness of the Malaysian Islamic equity market and Islamic fund management industries. Likewise, Md. Hashim, Habib, Isaacs, & Gadhoum (2017) pointed

out that the Shariah stock screening tool can limit or control the non-Shariah activities. At the same time, the involvement of Muslim investors in non-shariah activities limits and restricts cooperation in sinful acts.

Therefore, maintaining the financial ratios at not more than 33 per cent is a must for Malaysian public-listed Shariah-compliant firms to retain their Shariah-compliant status. In maintaining the financial ratio benchmarks below 33 per cent, monitoring the current situation and company's activities by mapping the SGR can help managers to make financial planning in an efficient manner (Rădăşanu, 2015). In addition, handling the company's financial leverage, dividend policy, profitability, and asset efficiency can help to maintain its listing status under the Shariah-compliant category.

2.10 Research Framework and Hypotheses

The framework of this study looks at three objectives. Firstly, this study investigates the existence of the target capital structure (TCS) and target dividend policy (TDP) of Malaysian public-listed Shariah-compliant firms. Secondly, the mediating effect of sustainable growth rate (SGR) on the relationship between firm specific factors (capital structure, dividend policy, profitability, company efficiency, firm size) and share price performance (SPP). Thirdly, to investigate whether there is a threshold capital structure in the relationship between the capital structure and the sustainable growth rate (SGR) of Malaysian Shariah-compliant firms. This framework aims to answer the research questions and achieve the specific objectives of this study.

For objective one, based on rational expectation in sustainable growth rate (SGR), this study assumes the company maintains its target capital structure (TCS) and target

dividend policy (TDP) which reflect the existence of both target capital structure (TCS) and target dividend policy (TDP). Then, the independent variables for target capital structure are presented by eight variables or factors (non-debt tax shield, tangibility, profitability, business risk, firm's size, growth opportunities, liquidity and SPP) that influence the capital structure. Then, the dependent variable for this study is capital structure.

Figure 2.3 illustrates the research framework for the existence of target capital structure.

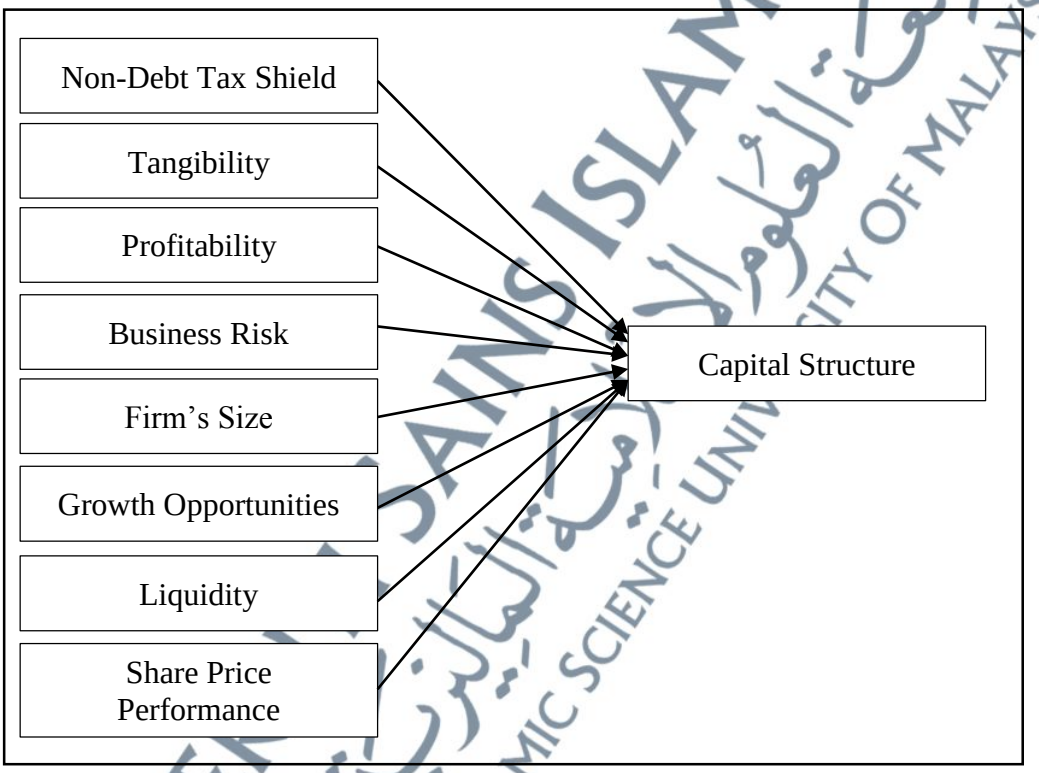


Figure 2.3: Firm Specific Factors of Target Capital Structure

The study also determines the existence of the target dividend policy, and the independent variables are presented by nine variables of factors (lagged dividend, earnings per share, market capitalization, investment opportunities, firm's size, sales growth,

leverage and growth opportunities) that influence the dividend policy. Then, the dependent variable for this study is dividend policy.

Figure 24 illustrates the research framework for the firms specific factors of the target dividend policy.

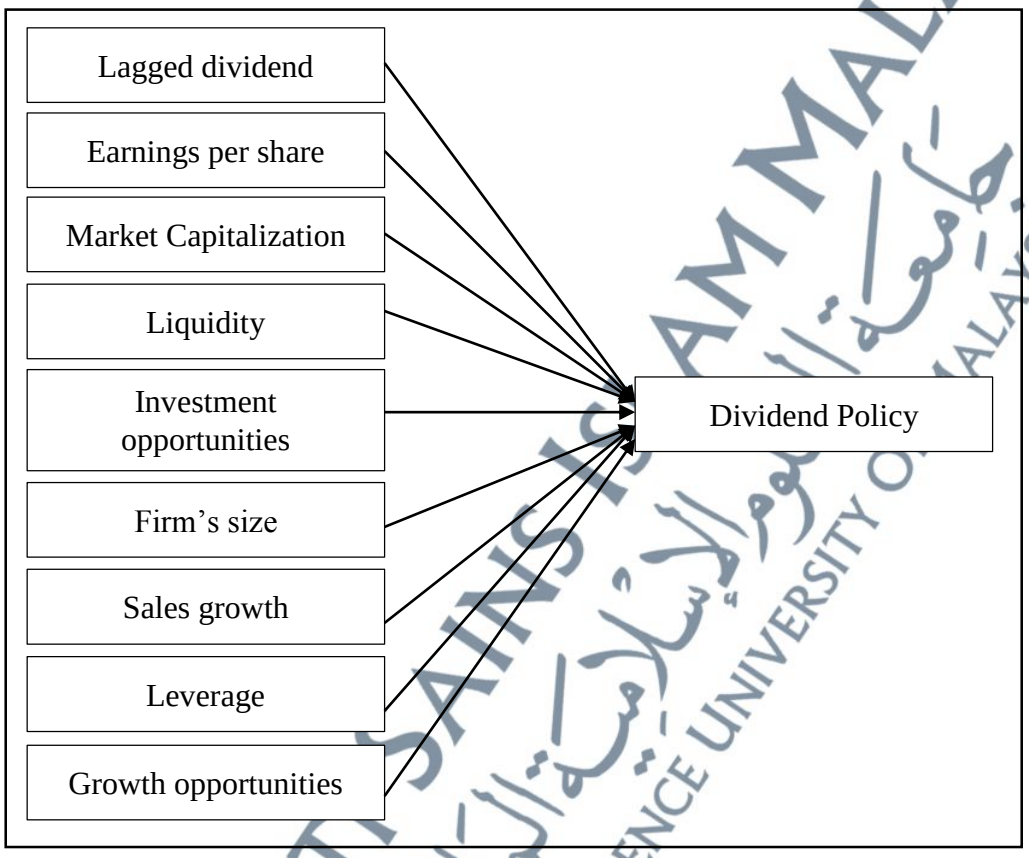


Figure 2.4: Firm Specific Factors of Target Dividend Policy

In relation to the target capital structure, Haron, Razali, and Ibrahim (2012) found that a target capital structure exists for Shariah-compliant firms in Malaysia. After identifying the existence of target capital structure and target Dividend Policy, this research continues with objectives two and three. The independent variables are presented by firm specific factors (capital structure, dividend policy, profitability, company efficiency, firm

size) that influence the SGR. The dependent and mediating variable included in this framework is the SGR. Meanwhile, the dependent variable for this study is SPP.

The research framework for this study is developed based on the gaps identified in the literature, precisely, those related to the firm specific factors among Shariah-compliant firms. This study refers to the procedures by Baron and Kenny (1986) in testing the mediating effects or indirect paths, while taking into consideration the recent modifications and comments suggested by Hayes (2013), and Zhao et. al (2010). Moreover, Miles and Shevlin (2001) stated that a variable is considered to be fully mediated if the independent variable first has an effect on the mediator variable to influence the dependent variable. They mentioned that a variable is considered to be partially mediated in a relationship between the independent and dependent variables if the independent variable exerts some of its influence through a mediating variable or directly (Miles & Shevlin, 2001).

The research framework of this study is illustrated in Figure 2.5 (the direct effect between the firm specific factors and SPP, the direct effect between the firm specific factors and SGR, the relationship between the SGR and SPP, and the mediating effect of the SGR on the relationship between the firm specific factors and SPP. Figure 2.5 also shown the model specification of the measurement model in that the study only has a formative construct and no reflective construct.

In this study, the model specifications include the formative construct only and no reflective construct. The measurement model consists of five formative constructs (i.e. financial leverage, dividend policy, profitability, company's efficiency, and firm's size). The model of analysis investigates the mediating effect of sustainable growth rate (SGR) on the relationship between firm specific factors (capital structure, dividend policy, profitability, company efficiency and firm size) and share price performance (SPP).

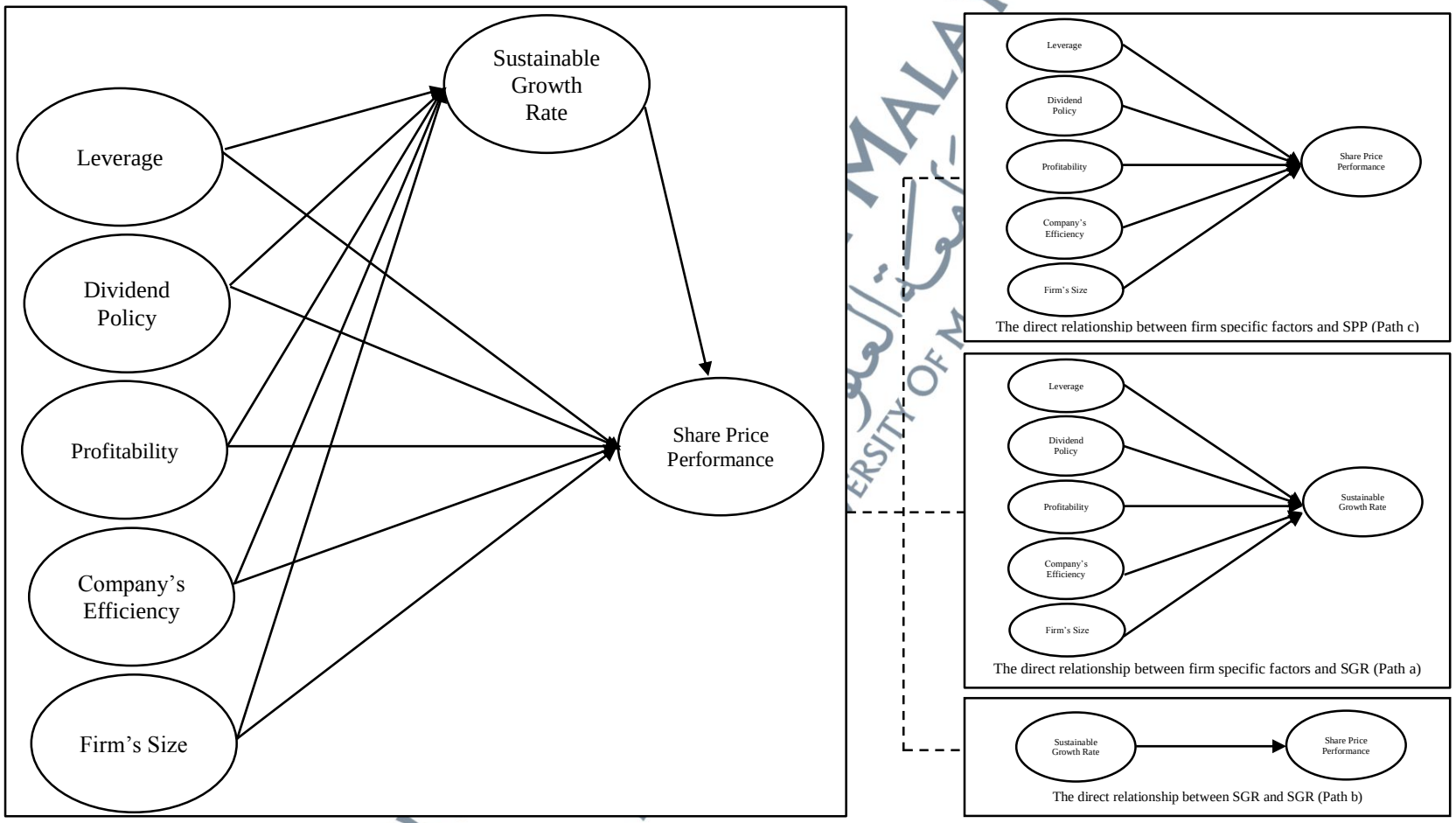


Figure 2.5: Model Specification of the Measurement Model

Table 2.6 shows the research hypotheses generated for this study as follows:

Table 2.6: Research Hypotheses

Objective	Step	Hypotheses	Details
1	1	H1.1: A target capital structure exists in Malaysian Public-listed Shariah-compliant firms.	
	2	H1.2: A target dividend policy exists in Malaysian Public-listed Shariah-compliant firms.	
2	1	H2.1: The firm specific factors have a significant relationship with SPP of Malaysian Public-listed Shariah-compliant firms.	H2.1a: Capital structure has a significant relationship with SPP of Malaysian Public-listed Shariah-compliant firms. H2.1b: Dividend policy has a significant relationship with SPP of Malaysian Public-listed Shariah-compliant firms. H2.1c: Profitability has a significant relationship with SPP of Malaysian Public-listed Shariah-compliant firms. H2.1d: Company efficiency has a significant relationship with SPP of Malaysian Public-listed Shariah-compliant firms. H2.1e: Firm size has a significant relationship with SPP of Malaysian Public-listed Shariah-compliant firms.
	2	H2.2: The firm specific factors have a significant relationship with the SGR of Malaysian Public-listed Shariah-compliant firms.	H2.2a: Capital structure has a significant relationship with the SGR of Malaysian Public-listed Shariah-compliant firms. H2.2b: Dividend policy has a significant relationship with the SGR of Malaysian Public-listed Shariah-compliant firms. H2.2c: Profitability has a significant relationship with the SGR of Malaysian Public-listed Shariah-compliant firms. H2.2d: Company efficiency has a significant relationship with the SGR of Malaysian Public-listed Shariah-compliant firms. H2.2e: Firm size has a significant relationship with the SGR of Malaysian Public-listed Shariah-compliant firms.
	3	H2.3: The SGR of a firm has a negative/positive relationship with SPP of Malaysian Public-listed Shariah-compliant firms.	
	4	H2.4: The SGR has an indirect/mediating effect on the relationship between firm specific factors and SPP of Malaysian Public-listed Shariah-compliant firms.	H2.4a: SGR has a mediating effect on the relationship between capital structure and SPP of Malaysian Public-listed Shariah-compliant firms. H2.4b: SGR has a mediating effect on the relationship between dividend policy and SPP of Malaysian Public-listed Shariah-compliant firms. H2.4c: SGR has a mediating effect on the relationship between profitability and SPP of Malaysian Public-listed Shariah-compliant firms. H2.4d: SGR has a mediating effect on the relationship between company's efficiency and SPP of Malaysian Public-listed Shariah-compliant firms. H2.4e: SGR has a mediating effect on the relationship between firm's size and SPP of Malaysian Public-listed Shariah-compliant firms.
3	1	H3.1: A capital structure threshold exists in the relationship between capital structure and the SGR of Malaysian Public-listed Shariah-compliant firms.	

2.11 Conclusion

This chapter discussed the literature review concerning the impact of the revised screening methodology, SGR model, underpinning theory, the importance of SGR, and the factors that influence the SGR of firm and SPP. This chapter also described the literature review concerning the effect of SGR for firms and SGR as a mediator. Finally, this chapter highlighted the research framework and hypotheses of this study. In Chapter 3, the research design, methods, sample of study, and model of analysis are discussed.