

A REVIEW ON CAPITAL STRUCTURE DIFFERENCES IN BANGLADESHI FIRMS AND ITS IMPACT ON THEIR FINANCIAL PERFORMANCE

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Abstract

The question of what should be the appropriate proportion of equity and debt capital for a firm to maximize its shareholders wealth and firm value has a long debate since there is no single optimum formula for that. This paper with the intends to provide a theoretical aspect of the chronological development of prominent capital structure theories over years along with an empirical aspect to evaluate the popular approaches of capital structure practices among financial managers in Bangladesh and to see whether there exist any significant differences in the impact of those approaches in the financial performances of those firms. The more careful choices of capital structure components with more sophisticated situation and combinations by the financial managers and considering the modern complex investment decision making influenced by psychological and/or cognitive biases of the investors and stakeholders are the policy implication of this paper.

Keywords

Capital Structure, leverage, profitability, ROE, ROA, Bangladesh.

1. INTRODUCTION

The capital structure decision is very important for any firm because the firms' value and goal of maximizing shareholder's wealth largely depends upon it since the company's choice of capital structure determines the allocation of its operating cash flow each period between debt holders and shareholders. In financial management, capital structure theory refers to a systematic approach to financing business activities through a combination of equities and liabilities. There are several competing capital structure theories, each of which explores the relationship between debt financing, equity financing, and the market value of the firm slightly differently (Investopedia). Therefore, the capital structure is one of the main decisions for any financial manager so as to decide the proportionate construction of capital structure to maximize the firm's wealth. Therefore, Identifying the optimal capital structure which results in minimizing a firm's cost of finance thereby maximizing the firm's revenue was always the focus of the financial managers.

In general, Capital structure refers to the different options used by a firm in financing its assets (Bhaduri, 2002). Thus, the capital structure of a company is made up of debt and equity securities that comprise a firm's financing of its assets. It is the permanent financing of a firm represented by long-term debt, preferred stock and net worth. So, it relates to the arrangement of capital and excludes short-term borrowings. Capital structure decision poses a lot of challenges to firms. Determining an appropriate mix of equity and debt is one of the most strategic decisions public interest entities are confronted with. A wrong financing decision has the tendency of stalling the fortunes of any business. Therefore, if managers are to achieve the goal of wealth maximization, conscious steps must be taken in the right direction and at the right time to identify those factors that must be taken into cognizance in determining appropriate financing mix (Modugu, 2013). Bangladesh as a developing country is moving forward with enormous growth prospect and with that, our financial market is merging with international practices and standards in corporate finance to establish a strong base.

This paper intends to provide a theoretical aspect of the development of prominent capital structure theories along with an empirical aspect to evaluate the popular approaches of capital structure practices among financial managers in Bangladesh and to see whether there exist any significant differences in the impact of those approaches in the financial performances of those firms.

2. OBJECTIVE OF THE STUDY

The main objective of this paper is to review the chronological development of capital structure theories over years. Also, this paper, with extending the existing literature, intends to review the popular approaches of capital structure practices of financial managers of different industries in Bangladesh and impact of those capital structure practices in their financial performances in the quest of finding an optimal capital structure.

3. RESEARCH GAPS

Different studies have tried to examine the application of different capital structure theories in different industrial sector and other financial institutions and their results are diverse (Kipesha and Moshi, 2014). But, most of the researches related to capital structure are based on developed countries (Rajan and Zingales, 1995; Wald, 1999; Akhtar, 2005; Akhtar and Oliver, 2009; Kester, 1986; Kremp et al, 1999; Ozkan, 2001; Frank and Goyal, 2007) whereas leaving only a little literature in the context of developing and underdeveloped countries background. Therefore, the continuous debate in search of fitted theories for such outset is still going on. In Bangladesh, though one of the emerging economies in the world with a GDP of more than 7%, very few studies have been done in this arena. Furthermore, there is no concrete and uniform finding about the impact of capital structure on profitability. The uniqueness of institutional and infrastructural structure and high yielding future prospect of Bangladesh made it more concentrated in capital market and urges to identify a perfect debt-equity combination which reflects on a higher firm value and share price for the financial managers.

This paper targets to fill this gap by providing a comprehensive review on the empirical researches conducted on Bangladesh perspective to identify the key findings and help the academicians a base for future research and the industry personnel to make more effective decision in their corporation.

4. METHODOLOGY

This research is mainly of descriptive nature. The study deals with the theoretical and empirical aspect of different capital structure theories emerged over years by different scholars and practitioners to seek an optimal mix of debt and equity capital to maximize firm's wealth. In a theoretical aspect, this study includes the chronological development of capital structure theories. Besides, in practical aspect, it also includes a review of the existing works in our country to see the popular approaches of capital structure followed by Bangladeshi firms and their impact on the financial performance.

5. LITERATURE REVIEW

The capital structure is defined as how a firm finances its overall operations and growth by using different sources of funds. Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. (Investopedia). Weston and Brigham (1979) defined 'capital structure' as the permanent financing of the firm represented by long-term debt, preferred stock and net worth. According to Van Horne and Wachowicz (1995), capital structure is the mix of a firm's permanent long-term financing represented by debt, preferred stock, and common stock equity. So, capital structure of a firm can be consisting of a mixture of firm's long-term debt, short-term debt, common equity and preferred equity. As per Pandey (2005), "The term capital structure is used to represent the proportionate relationship between debts and equity. Equity includes paid up share capital, share premium and reserves and surplus". According to Gerestenberg, 'capital structure of a company refers to the composition or make up of its capitalization and it includes all long term capital resources viz., loans, reserves, shares and bonds'. Keown et al. defined capital structure as, 'balancing the array of funds sources in a proper manner, i.e. in relative magnitude or in proportions.' Financial manager prefers debt source more than equity refers to two reasons: the cost of debt is less than equity cost and the tax advantage of debt, which would therefore, maximize the firm performance (Soumadi and Hayajneh, 2013; Arbabiyan and Safari, 2009).

Margaritis and Psillaki (2010) found that leverage have positive effect on firms' efficiency over the entire sample by using a sample of both low and high growth French firms for the period 2003-2005. Aliakbar, Seyed and Pejman (2013) also found a significant positive relation between capital structure and firm performance in the Tehran Stock Exchange comparing between big and small industries in firms.

Roden and Lewellen (1995) tested a sample of 48 U.S. firms during 1981-1990 and also found a positive relation between profitability and capital structure. Similar results were also observed by Champion (1999), Ghosh, Nag, and Sirmans (2000), Hadlock and James (2002) and they all concluded that firms with highly profitable firms use high-level of debts.

In contrast, Fama and French (2002) witnessed a negative relation between capital structure and firm's performance since they observed that highly profitable firms with lower risk of financial distress are actually less levered which contradicts with the trade-off theory. (Alom, 2013) also tested that there is an inverse correlation between capital structure and firm performance.

Negative affect of the use of debt on firm performance was also identified by Manawaduge, Zoysa, Chowdhury, and Chandarakumara (2011) where they also concluded that most of the Sri Lankan firms employ short-term debt capital as against the long-term debt.

On the other hand, some authors revealed mixed results. Salim and Yadav (2012) studied the relationship between capital structure and firm performance using a sample of 237 Malaysian companies during 1995-2011. Their analysis revealed that firm performance measured by ROA, ROE and EPS have negative relationship with the capital structure while Tobin's Q has significantly positive relationship with Short Term Debt and Long Term Debt.

Along with corporate finance, Behavioral Finance, a branch of financial economics, uses models in which decisions are influenced by psychological and/or cognitive biases. This area of research has developed from the work of Kahneman and Tversky (1979) and prospect theory. It provides insight into the influence of psychology on the behavior of managers and investors and the subsequent effects on markets of their financial decision making (Nofsinger, 2005). Now, manager confidence has been considered an important variable in capital structure choice.

5.1: Chronological Development of Capital Structure Theories

For many years, both researchers and academicians are performing theoretical and empirical studies on capital structure to find out the optimal capital structure, a perfect blend of debt and equity capital that maximizes the firm value and shareholders wealth by minimizing cost of fund and other hidden costs.

However, there is no universal theory of capital structure and no reason to expect one (Frank and Goyal, 2004).

Financial experts traditionally believed that increasing a company's leverage, i.e. increasing the proportion of debt in the company's capital structure, would increase value up to a point. But beyond that point, further increases in leverage would increase the company's overall cost of capital and decrease its total market value.

1. Net Income Approach:

This approach has been propounded by Durand David in 1959. According to this approach, the market value of equity shares is based on the earning available for equity shareholders after the payment of interest on debt if it is included in the Capital Structure. The earning of the firm after the payment of all other expenses except interest on debt is called Net Operating Income (NOI) and the earning available for equity shareholders after the payment of interest is called as "Net Income (NI). Therefore, Net Income = Net Operating Income (NOI) - Interest on debt (I). To what extent does capital structure decision affect performance and in which direction, was the major concern of their studies.

According to this approach, a firm may increase the total value of the firm by lowering its cost of capital. When cost of capital is lowest and the value of the firm is greatest, we call it the optimum capital structure for the firms and at this point, the market price per share is maximized.

2. Net Operating Income Approach

This approach was also put forth by Durand and totally differs from the Net Income Approach. like the previous one, the idea of optimal capital structure does not exist. Also, the hidden cost of debt was identified by Durand.. In this approach, Consequently, hidden cost of debt fades the benefits of using debt as a cheaper source of finance (Baum and Crosby, 1988).

Net Operating Income Approach to capital structure believes that the value of a firm is not affected by the change of debt component in the capital structure. It assumes that the benefit that a firm may derives by infusion of debt is negated by the simultaneous increase in the required rate of return by the equity shareholders. Since, with an increase in debt, bankruptcy risk increases and such a risk perception increases the expectations of the equity shareholders. So, the WACC and the total value of a company are independent of the capital structure decision or financial leverage of a company.

3. The Modigliani-Miller Approach:

The first prominent theory of business finance which led the foundation for theories and research in the field of capital structure and put the scholars and practitioners into a great debate and concern, starts with the Modigliani and Miller (1958) capital structure irrelevance proposition. In an article, "The Cost of Capital, Corporate Finance and theory of Investment", published in American Economic Review, June 1958, Modigliani and Miller propounded their view on optimum capital structure, which is popularly known as MM Approach. The theory provides insight into a firm's capital structure decision in a capital market free of taxes, transaction costs, and other frictions.

Modigliani and Miller start by assuming that the firm has a particular set of expected cash flows. When the firm chooses a certain proportion of debt and equity to finance its assets, all that it does is to divide up the cash flows among investors. Investors and firms are assumed to have equal access to financial markets, which allows for homemade leverage. The investor can create any leverage that was wanted but not offered, or the investor can get rid of any leverage that the firm took on but was not wanted. As a result, the leverage of the firm has no effect on the market value of the firm (Luigi and Sorin 2009). MM showed that the benefit from debt financing –financing at a low rate will be offset by the increase in cost of equity derived from high financial risk perceived by the shareholders and individual project risk has no relation to the sources of fund it uses. Therefore, market value of a company and cost of capital are independent to the extent of debt in the capital structure.

But, Their paper led subsequently to both clarity and controversy since MM theory was based on several restrictive assumptions as followings: perfect and frictionless markets, no transaction costs, no default risk, no taxation, both firms and investors can borrow at the same interest rate. And since then, many researches have been conducted with less restrictive assumptions.

Acknowledging the criticism, they made another explanation in 1963 after incorporating the effect of tax in the model is that value of the firm would be maximized if it uses 100% debt in its capital structure since interest payments are tax deductible. In 1977 Miller new version of irrelevance theory reveals that capital structure decision of a firm has no effect in real world of corporate and personal tax.

4. Traditional approach:

While Net Income Approach and Net Operating Income Approach are the two extremes Approach are the two extremes, traditional approach, advocated by Ezra Solomon and Fred Weston is a midway approach also known as “intermediate approach”.

Traditional approach is based on the belief that optimal capital structure always exists, and we can increase the value of firms by making use of leverage. It is a combination of two previous approaches (NI and NOI). It has three stages. The range that capital cost is the least is called optimal range of financial leverage (stage II), and the capital structure of this area is called optimal capital structure. The Theory states that when the Weighted Average Cost of Capital (WACC) is minimized, and the market value of assets is maximized, an optimal structure of capital exists. This is achieved by utilizing a mix of both equity and debt capital. The Traditional Theory of Capital Structure says that a firm's value increases to a certain level of debt capital, after which it tends to remain constant and eventually begins to decrease if there is too much borrowing. This decrease in value after the debt tipping point happens because of overleveraging. A blend of equity and debt financing can lead to a firm's optimal capital structure.

5. Agency Cost theory:

Agency Theory, established by Jensen and Meckling in 1976, states that optimal capital structure can be accomplished through the minimization of the agency cost by increasing the ownership of the managers in the firm or taking more debt with a view to controlling the tendency of managers for excessive perk consumptions.

According to agency costs theory, the agency problem is caused by a conflict of interest between shareholders and managers (agency cost of equity) or between shareholders and debt holders (agency cost of debt). Thus, the use of debt will reduce the agency cost since the payment of interest reduces the surplus cash (Suleiman, 2013). Thus, in agency theory debt financing was proposed as a way of monitoring managers of the firm to focus on overall objectives of the organization apart from their own interests. And it is to be expected that increased leverage in the context of low agency costs may raise the level of efficiency and thereby contribute to upgrading firm performance.

6. Trade off theory:

The pioneer of the trade off theory was A. Kraus and R.H. Litzenberger, who in 1973 considered a balance between the dead-weight costs of bankruptcy and the tax saving benefits of debt. The main idea is that firm choose its debt and equity proportion of capital structure by maintaining a balance between cost and benefit from both the sources, i.e. a tradeoff between tax advantages of debt and bankruptcy costs of debts (Miller, 1977).

The trade-off theory argues that firms trade off the benefits and costs of debt and equity financing and reach to an optimal capital structure even with the market imperfections such as taxes, bankruptcy costs and agency costs. Profitable firms can borrow more up to a certain level, because after that the profitability and the value of the firm will decrease due to interaction of bankruptcy costs and agency costs.

Static trade off theory:

Focusing on main theory, Scott (1977), proposed the Static Trade-off theory arguing that an optimal capital structure can be attained at the trade-off point between interest tax shield, the benefit got through not paying tax on the interests paid and financial distress cost, the cost for not being able to repay loans in due time, also known as bankruptcy cost. But this theory also doesn't indicate the specific proportion of debt and equity to achieve an optimal capital structure. This theory also implies that, capital structure does exist and a firm's optimal debt equity ratio is achieved at the point when the marginal present value of the tax on additional debt is equal to the increase in the present value of financial distress costs. So, this theory argues that there is a positive relationship between the firm's leverage and performance.

Dynamic trade-off theory:

Constructing a timing model of market requires identifying a number of aspects that are typically ignored in a single-period model. Expectations and adjustment costs play important roles in dynamic trade-off theory. In a dynamic model, the correct financing decision typically depends on the financing margin that the firm anticipates in the next period. Some firms expect to pay out funds in the next period, while others expect to raise funds. If funds are to be raised, they may take the form of debt or equity. More generally, a firm undertakes a combination of these actions.

7. Signaling theory:

In 1977, Ross laid down the foundations of signaling theory. According to Ross, investors interpret larger levels of leverage as a signal of the firm's current stable income, high future cash flows and managers' confidence about the performance of their own firm. Consequently, Ross argued that investors take larger levels of debt as a signal of higher quality and that profitability (as a proxy of quality performance) and leverage are thus positively related.

Based on asymmetric information, he argued in the Signaling Theory that managers have better inside information about the firm compared to the investors and hence, leverage decisions taken by the managers give signal to the market because debt financing is treated by investors as a signal of high future cash flows and high future performance of the firm. On the contrary, if the firm issues equity in the market to raise funds, then the investors infer that the company's future investment opportunities are small and their share price is overvalued.

8. Constructing cost theories:

The contracting cost theories hinge on the underinvestment problem suggested by Myers in 1977. The underinvestment problem can be illustrated as- highly levered firms are more likely to pass up investment opportunities because of the risk of default. This problem is further exacerbated by the higher costs of equity associated with firms with the prospect of default. This may cause financially distressed firms to forgo both capital and investment opportunities. The prediction of the contracting cost hypothesis is that firms whose value consists mainly of the present value of intangible investment opportunities will choose lower debt ratios. This conservative approach to debt issuing is followed in order to minimize the adverse effects of the underinvestment problem. Conversely, large mature firms with fewer investment opportunities will choose high debt ratios because of the lower possibility of financial distress costs. This prediction is contrary to the pecking order theory which posits that high growth firms with relatively fewer cash flows will have higher debt ratios.

9. Peaking Order theory:

Myers and Majluf in 1984, introduced the pecking order theory which articulates that optimal capital structure does not exist. They argued that to minimize the problem of asymmetric information between firms' managers and investors, financial pecking order; i. e. a hierarchy of financing that begins with retained earnings, which is followed by debt because cost of debt is less than that of equity, and finally new stock issues, takes place. Besides, external financing transaction costs, especially those associated

with adverse selection, influences the managers to have a preference for retained earnings, due to its zero cost, as an optimal financing strategy.

Thus, based on this argument, more profitable firms generate higher earnings that can serve for self-financing, enabling them to opt less for debt financing; conversely, less profitable firms do not enjoy the same opportunity, being compelled to take on debt to finance their ongoing activity. Consequently, the theory asserts a negative correlation between the debt level and firm performance.

10. Free Cash flow Hypothesis:

In 1986, Jensen stated in the Free Cash Flow Theory that with excess free cash flows in hand, managers tend to invest in matured or ill-advised projects that diminish shareholders' wealth. Free cash flow is the amount of cash that a company has left over after it has paid all of its expenses, including investments (Investopedia glossary). It is important because it allows a company to pursue opportunities that enhance shareholder value. Without cash, it's tough to develop new products, make acquisitions, pay dividends and reduce debt (Investopedia glossary).

He also suggested that this problem can be resolved by paying more dividends or taking more debt which prevent a manager from probable deviations to abuse company's income for personal purposes. Because of law requirements, paying the principal and interest of debt is preferred to paying dividends to diminish the level of free cash flow (Jensen, 1986).

11. Market timing theory:

The most recent theory regarding capital structure was recommended by Baker and Wurgler which is known as market timing theory of capital structure in 2002. This which suggests that managers can increase current shareholder's wealth by timing the issue of securities. Therefore, firms time their equity issues by selling new stocks when the stock price is perceived to be overvalued i.e. when the firm's market value relative to book value is high, and buying back own shares when they are undervalued i.e. when the debt market conditions are perceived relatively more favorable

5.2: Popular Approaches of Capital Structure and their Impact: Evidence from Firms in Bangladesh

A number of research has been conducted till date on the capital structure choices in Bangladeshi firms.

Rakibul (2016) investigated the firm specific determinants to explore capital structure choices by using panel data model for 63 DSE listed manufacturing companies during 2008 to 2012. The results for leverage ratios identified that the total leverage ratio is 66% and long term leverage ratio is 14%. This result clearly expresses the preference of short term debt as sources of fund rather than long term debt by most of the listed companies in Bangladesh. Therefore substantial portion of total leverage has been constituted by short term leverage in Bangladesh. Also, the negative relationship found between profitability and debt in DSE listed firms initially supported by pecking order theory. Though pecking order suggest to use debt after retained earnings as a sources of fund but here listed companies use debt and equity simultaneously after retained earnings depending on cost benefit in consideration. Thus, he suggested that, firm should finance its project through internally generated funds without changing present situation rather availing greater debt capacity as well as without changing its control scenario. If there is lack of available internal funds (retained earnings), firm's manager should be prudent enough to decide right choices for financing at that time without inclining to any specific one (only debt or only new stock) based on the cost consideration. He also find that, though it is evident that companies has inclination to reap tax benefit, Bangladeshi companies use debt only if it can generate more benefit than equity financing because of sensitivity of debt market to the riskiness (earning volatility) of fund seeking firms and corporate tax rate.

Amin and Jamil (2015) studied the impact of capital structure on firm performance in 7 listed cement companies operating in Bangladesh for the period of 15 years from 2001 to 2015. How the capital

structure decision affects the firm performance and in which direction, was their main concern. The study used short term debt to total assets and long term debt to total asset, as proxy for capital structure and, return on equity (ROE) and return on asset (ROA) as measure of performance of the companies.

They have observed that the cement companies of Bangladesh are not highly levered firms. On an average, 55 percent of the assets of the cement companies are finance by debt capital. The companies use more short-term debt which ranges from 3 percent to 83 percent of total assets with a mean of 42 percent. On the other hand, the cement companies employ around 13 percent long-term debt with a range of 0 percent to 61 per cent. The test results indicate a significant positive relationship between Short-term debts to total assets (Ratio of short-term debt to total assets) and ROE. The correlation between Short-term debts to total assets and ROA is also positive and significant, indicating short-term debt which is mainly composed of different types of payables including trade payables, short-term loans, and current portion of long-term debt had contributed positively to firm profitability. Besides, the financial performance of the cement companies was also affected by variables other than capital structure like growth of sales (SG), age of the companies, and natural logarithm of total asset etc. Chowdhury and Chowdhury (2010) analyzed 77 companies from four different dominant sectors (pharmaceuticals and chemicals, fuel and power, food, and engineering) of Bangladesh capital market from 1994 to 2003 to find out the impact of capital structure on the value of firm in the context of Bangladesh economy. They used share price as dependent variable; firm size, profitability, public ownership in capital structure, dividend payout, asset and operating efficiency, growth rate, liquidity and business risk were taken as independent variables. Capital structure was represented by the ratio of long term debt to total assets.

Through their analysis they have seen that capital structure has impact on the market value of a firm. It was also observed that by changing its current ratio, operating leverage, EPS, dividend payout ratio or share capital of a firm may increase its value in the market. Public shareholding has negative coefficient with price which implies that if any firm has greater shareholding by the public then the price of that particular company will decrease. So, a firm can increase its price by reducing public shareholding. Moreover, Long term debt to total asset had the highest coefficient, indicated the portion of long term liability or credit on total firm's fixed assets which supported that by taking debt to its capital structure one firm can increase the market value of share. Thus, they suggest that maximizing the wealth of shareholders requires a perfect combination of debt and equity, whereas cost of capital has a negative correlation in this decision and it has to be as minimum as possible. It was also seen that by changing the capital structure composition a firm can increase its value in the market.

Hasan et. Al. (2014) tried to see influence of capital structure on firm's performance through a pool of sample of 36 Bangladeshi firms listed in Dhaka Stock Exchange during the period 2007–2012 selected from cement, food, fuel & power, Pharmaceuticals and miscellaneous sectors. Four performance measures; earnings per share (EPS), return on equity (ROE), return of asset (ROA) and Tobin's Q has been used as dependent variables and three capital structure ratios; short-term debt, long-term debt and total debt ratios; as independent variables.

They found that EPS is significantly positively related to short-term debt while significantly negatively related to long-term debt. Also found a significant negative relation between ROA and capital structure. On the other hand, there was no statistically significant relation exists between capital structure and firm's performance as measured by ROE and Tobin's Q. Nonetheless, aside from the positive relation between EPS and STDTA, they concluded that capital structure has negative impact on firm's performance which is consistent with the proposition of Pecking Order Theory.

Hossain (2016) investigated the effects of capital structure and managerial ownership on the profitability of the Bangladeshi companies. He used a panel data of 81 manufacturing companies listed under 10 industries in Dhaka Stock Exchange for 2002-2014. ROA and ROE was used as the measure of profitability. Short-term debt, long-term debt and total debt ratios were used to represent the capital structure of the firms.

The results showed that around 57% of their total assets was financed by total debt in which proportion of short term debt is more (42.91%) than that of long term debt (12.73%). It indicates that the companies are following aggressive financing strategies which are very risky for them. Some firms even didn't have long term debt in their capital structure and the bankruptcy costs of these firms are very high (56.08%) as well as they have a very high degree of operating leverage which indicates high business risk. He also found that capital structure variables negatively affect ROA but positively affect ROE of the firms. That means, the more a firm finances its assets by debt, the less the return on assets will be and vice versa. Furthermore, Short term debt influences profitability of the firms more severely compared to Long term debt and suggested as the financial managers should employ less leverage in the capital structure and minimize agency cost of equity in order to maximize the profitability of firms. On the contrary, the positive relationship with return on equity results from the reason that, as the firm takes more debt financing, the required rate of return of the shareholders increases on the ground that debt financing increases the financial risks as well as the possibility of bankruptcy in future. These results are consistent with Hasan et al. (2014).

Rouf (2015) investigated the listed non-financial companies in Dhaka Stock Exchange (DSE) for the period of 2008-2011 to identify the capital structure that affects the performance of listed companies in Bangladesh and examine the relationship between the attribute of capital structure and the performance of listed companies in Bangladesh. The sample data have been collected of 106 listed manufacturing companies from Dhaka stock exchange for the period 2008-2011. The independent variables were debt ratio, debt to equity ratio, current debt ratio, proprietary of equity ratio and current assets proprietors' funds ratio. Performance of the firm was measure by ROA and ROE.

He found that the average debt ratio is 56.56% among the tested firms. Also, the results from regression models showed that Debt Ratio, Debt Equity Ratio and Proprietary of Equity Ratio were significantly negatively significant related with Return on Asset (ROA) and Return on Sales (ROS).

Alom (2013) also attempted to accomplish to identify the firm specific factors affecting capital structure decisions of listed firms in Dhaka Stock Exchange and how the factors affecting capital structure decision are related to leverage. By analyzing the factors affecting capital structure decision on 44 listed companies in the Dhaka Stock Exchange by using the panel data models over the periods 2004-2011, he postulated that, the average proportion of debt in total capital of firms was around 62%. Results also revealed that leverage ratios were significantly different across Bangladeshi industries. Profitability, collateral and liquidity had significant negative impact on leverage. On the other hand, market to book value ratio had positively significant impact on leverage.

Akter et. Al. (2015) compared the capital structure of 10 commercial banks and 10 non-bank financial institutions which covered a period of five (5) years from 2009-2013 to see whether there were any differences between banking and non-banking capital structure and in their performance or not. Firm performance was measured through ROE, ROA, EPS and capital structure was measured through Total Debt to Total Equity Ratio (DER), and Total Debt to Total Funds Ratio.

Result found that that there is no significant difference between Bank and non-bank's EPS but a significant difference exists between Bank and non-bank's D/A ratio and D/E ratio and ROA and ROE, which they then interpreted that banking sector uses more debt than non-banking sector.

Siddik et. Al. (2016) Using the panel data of 22 banks for the period of 2005–2014, examined the impacts of capital structure on the performance of Bangladeshi banks assessed by return on equity, return on assets and earnings per share and showed that capital structure inversely affects bank performance. viz. TDTA, LTDTA, and STDTA, have significant inverse impacts on ROA; TDTA and STDTA have significant negative impacts on ROE along with LTDTA and STDTA have significant negative impacts on EPS which supports the pecking order theory. They argued these negative impacts with explaining by the characteristics of an underdeveloped bond and equity market in the developing countries like Bangladesh, such as information asymmetry, strong covenants of debt and so on, for which there exists a high cost of debt.

Mukit & Ahmed (2014) used a sample of 19 banking firms listed on Dhaka Stock Exchange (DSE) during the period of 2008-2012 and conducted a study to determine the impact of capital structure on financial performance of the Banking sector of Bangladesh. The study used ROE, ROA and EPS as dependent variables to represent the financial performance and long-term debt to capital ratio (LTDTC), short-term debt to capital ratio (STDTC) and total debt to capital ratio (TDTC) as independent variables to represent the capital structure.

The results of the study suggested that, long term debt to capital (LTDTC) and total debt to capital (TDTC) have a negative and significant relationship with return on asset (ROA) where short term debt to capital (STDTC) has a positive but significant relationship. On the other hand, ROE is negatively related with long term debt to capital (LTDTC) and total debt to capital (TDTC) while short term debt to capital (STDTC) is positive but insignificant. The findings depict that capital structure has no significant impact on the ROE of the Banking firms. All in all, the overall result indicates that capital structure has significant impact on the financial performance of the banking sector of Bangladesh and suggested that managers should consider the factors influencing capital structure and should go for optimal mix of debt and equity capital in order to maximize firm's value.

Research on	Conducted by	Sample examined (Industry, Number of Firms, duration)	Variable used	Findings	Supported Theory	Suggestion
Determinants of Capital Structure Choices for Listed Manufacturing Companies in DSE	Rakibul (2016)	63 DSE listed manufacturing companies during 2008 to 2012.	Total leverage and long term leverage as dependent variable. Profitability, tangibility, age, liquidity, size, growth opportunity, debt service coverage as independent variable.	Pecking order theory have dominating influence on leverage in Bangladesh and short term debt is preferred to long term debt as a source of financing.	Pecking order theory	Firm should finance its project through internally generated funds rather availing greater debt capacity as well as without changing its control scenario. In case of lack of available internal funds, firm's manager should be prudent enough to decide right choices for financing considering cost situation.
Impact of capital structure on firm performance of cement industry	Amin and Jamil (2015)	7 listed cement companies operating in Bangladesh for the period of 15 years from 2001 to 2015	short term debt to total assets and long term debt to total asset, as proxy for capital structure; ROE and ROA as performance measure	a significant positive relationship between the short-term debt to total assets ratio and firm performance and vice versa.	Pecking order theory	long-term financing is relatively costly source of financing and imposes tough covenants also bring financial distress costs and additional regulatory supervision costs that might offset the benefit of long-term financing. So, Firm should finance from its retained earnings and use the short term debt when needed.
the impact of capital structure on the value of firm in the context of Bangladesh	Chowdhury and Chowdhury (2010)	77 companies from pharmaceuticals and chemicals, fuel and power, food,	share price as dependent variable; firm size, profitability, public ownership, dividend payout, growth rate, liquidity and	Public shareholding has negative coefficient with price. So, a firm can increase its price by reducing public shareholding. Long term debt had	Signaling theory	Maximizing the wealth of shareholders requires a perfect combination of debt and equity, whereas cost of capital has a negative correlation in this decision and it has to be as

economy		and engineering sectors from 1994 to 2003	business risk as independent variables. capital structure was represented by the ratio of long term debt to total assets.	the highest on total firm's fixed assets which supported that by taking debt to its capital structure one firm can increase the market value of share.		minimum as possible. So, Financial managers can utilize debt to form optimal capital structure to maximize the wealth of shareholders.
Influence of capital structure on firm's performance	Hasan et. Al. (2014)	36 listed firms in Dhaka Stock Exchange during the period 2007–2012.	EPS, ROE, ROA, Tobin's Q as dependent variables. short-term debt, long-term debt and total debt ratios; as independent variables.	Capital structure has negative impact on firm's performance. The more the debts incorporate in the capital structure, the less the firm's performance and vice versa.	Pecking order theory	the finance managers should use debts as last alternative in their capital structure.
the effects of capital structure and managerial ownership on the profitability of manufacturing companies	Hossain (2016)	81 manufacturing companies listed under 10 industries in Dhaka Stock Exchange for 2002–2014.	ROE, ROA as dependent variables; short-term debt, long-term debt and total debt ratios; as independent variables.	Bangladeshi firms followed aggressive financing strategies that led to an increase in their financial & bankruptcy risks to a great extent.	Agency Cost theory	The financial managers should employ less leverage in the capital structure and minimize agency cost of equity in order to maximize the profitability of firms.
impacts of capital structure on the performance of Bangladeshi banks	Siddik et. Al. (2016)	22 banks for the period of 2005–2014	EPS, ROE, ROA as dependent variables; short-term debt, long-term debt and total debt ratios; as independent variables.	capital structure inversely affects bank performance. viz. TDTA, LTDTA, and STDTA, have significant inverse impacts on ROA, ROE along with LTDTA and STDTA have significant negative impacts on EPS.	Pecking order theory	financial managers should try to finance from retained earnings rather than relying heavily on debt capital in their capital structure. However, they can employ debt capital as the last resort.

Fig:1. Summary of the major evidence of capital structure choices from Bangladesh and their impact on firm performances

6. KEY FINDINGS

A variety of study have been conducted in Bangladesh perspective with the data of listed companies from different sectors and industries. As we have seen, most of the study expresses the negative impact of capital structure, that is using more debt as a source of capital, on firm's performance. Also, the research result found the dominance of pecking order theory over other theories in explaining capital structure choices in Bangladeshi firms which expresses that the financial manager maintain a preference hierarchy of the sources of funds. Various popular studies such as Harris and Raviv (1991), Rajan and Zingales (1995), Fama and French (2002), Gleason, Lynette, and Ike (2000), Booth, Aivazian, Demircug-Kunt, and Maksimovic (2001), Manawaduge at el (2011) and Anup and Suman (2010) which was conducted in different countries with different firm size and characteristics, also support this negative relationship.

Now, this negative relationship can be explained by the higher cost of debt and strong covenants attach to the use of debt due to underdeveloped equity and debts (long-term) markets in Bangladesh. The

negative relationship can also be attributed to the agency cost of debt between shareholders and creditors which conforms to the agency cost theory. Again, as Bangladeshi firms are highly leveraged and so their financial risks and bankruptcy costs are very high which overweighs the interest tax benefit received from debt financing. Henceforth, the return on assets declines as leverage increases. There are also several other factors which may involve behind the controversial findings of the empirical literature. Firstly, different types of sample focused on different countries, sectors, companies & periods have been used in empirical studies. Secondly, different measures of profitability i.e. ROA, ROE, ROI, ROIC, EPS, Tobin's Q, Size, Efficiency etc. and different measures of capital structure like short term debt ratio, long term debt ratio, total debt ratio etc. have been used by the researchers. Lastly, various econometric methodologies (Ordinary Least Square regression, Generalized Least Square regression, Weighted least squares, Fixed effect, Random effect, Method of simultaneous equations and Generalized Method of Moments etc.) have been applied by the researchers to derive the empirical relationship between capital structure and profitability.

6. CONCLUSION:

Bangladesh as a developing country has now become an emerging market with a lot of potential of investment that gets an attention for local and foreign investors. Managers need to rethink about the influencing factors of using debt and their degree of impact over firms to attract those investments. There are now many other controlling factors which can mold the financial performance of the firms. Day-by-day, the completion over sources and uses of funds are increasing at an intense level. So, they should be concerned about these moderating and controlling factors too.

Along with corporate finance, Behavioral Finance, a branch of financial economics, also focuses on the managerial and investment decision-making process in which decisions are influenced by psychological and/or cognitive biases. It provides insight into the influence of psychology on the behavior of managers and investors and the subsequent effects on markets of their financial decision making. Now, manager confidence has been considered an important variable in capital structure choice.

This paper will help the academicians and ensuing researchers as an initial base for getting a good grasp of the theories and ideas of capital structure. Moreover, with the help of the synthesis of evidence provided by different studies, the financial managers can use it as a strong decision making tool into different situations.

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