INTERNATIONAL JOURNAL OF LATEST TECHNOLOGY IN ENGINEERING, MANAGEMENT & APPLIED SCIENCE (IJLTEMAS)

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIII, Issue VIII, August 2024

Impact of Capital Structure on Financial Performance and Risk of Publicly Listed Manufacturing Firms in Bangladesh

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DOI: https://doi.org/10.51583/IJLTEMAS.2024.130810

Received: 31 July 2024; Accepted: 21 August 2024; Published: 06 September 2024

Abstract: The paper examines the impact of capital structure on financial performance and risk for the listed manufacturing companies in Bangladesh. The study considers the relationships of capital structure with different measures of performance based on accounting, hybrid, and risk factors by applying six multivariate Ordinary Least Squares regression models based on data extracted from 120 firms listed on the Dhaka Stock Exchange for the period from 2017 to 2023. The results indicate that Earnings per Share are significantly driven by the Debt to Market Value of Equity ratio and market capitalization, mostly emphasizing the role of market valuation metrics. In addition, Return on Equity is highly influenced by total assets and market capitalization, further stressing the impact of firm size and valuation. In addition, Return on Assets is influenced by these factors as well, with larger firms usually showing a lower ROA. Finally, Tobin's Q is influenced by multiple financial ratios, reflecting the importance of such metrics. Overall, the study thus offers valuable insight into how capital structure affects firm performance and risk in the Bangladeshi manufacturing sector, whereby this information would be of great help to investors and policy makers.

Keywords: Capital Structure, Risk, Debt-To-Equity Ratio, Return on Equity (ROE), Earnings Per Share (EPS), and Return on Assets (ROA).

I. Introduction

An organization's management structure should first be a corporate governance decision, which emphasizes the need for improved fiscal performance to achieve stakeholder expectations and strategic objectives (Aamer, et al. 2015; Petre, et al. 2011). An important issue for financial managers knows precisely what is the proper capital structure or degree of leverage. For instance, capital structure has long been one of the most important and tricky issues boards of directors have had to grapple with in finding the correct mix that can sustain capital needs over a long period. Capital structure, being a mix of equity and debt, is strategic for enhancing the competitiveness and profitability of any given company (Malik, 2023). Moreover, firm-specific factors such as size, profitability, tangibility, growth, and interest coverage all interplay to influence the capital structure choices of firms (Santhosh et al., 2021). One of the stiff challenges that financial managers have to grapple with is finding the right mix between debt and equity financing that will yield an optimal cost of capital and improve the resultant financial performance measures. This only goes to entrench further the competitive advantage of a firm, besides being a guarantee for long-term survival.

By understanding these dynamics, managers can allocate optimal financial resources in pursuit of the firm's objectives and competitive position. Scholars have also pointed out that the capital structure decision has considerable impacts on the performance and solvency of firms. In the seminal work by Modigliani and Miller in 1958, it was quite well established how a firm's financial choices could impact its market value. Empirical evidence, however, shows that borrowing levels may further distort market value of a firm in view of inefficiencies in the market. Authors such as Salim and Yadav in 2012 and Ugwuanui in 2012 studied how credit risk of a company moderates its profitability, the general stock risk, and the firm's value in general, showing a very complex relationship that exists between capital structure decisions and firm outcomes. Understanding these dynamics is primary for any firm to understand the complexities of capital structure and to maximize their financial performances. It has been documented in scientific studies that the mix between debt and equity financing drastically affects the operations of a company. Previous studies have only been limited to a few companies of certain industries, such as cement, pharmaceuticals, chemicals, and banking, listed on the Dhaka Stock Exchange (Uddin, 2024; and Tabassum et al., 2023). Hence, this study sets out to examine the combined impact of capital structure, firm risk, and firm performance in Bangladesh's manufacturing industry.

II. Literature Review

On the relation between capital structure and financial risk, literature says much about it in finance literature. The well-balanced position between debt and equity is important to avoid risk and improve firm value. Literature states that appropriate capital structure decisions are very vital to maximize profitability with the least financing cost (Richard, 2024; Trajanka, 2023). While complete financing through equity or excessive debt could be a problem, a proper mix of equity and debt is inevitable. Firms that are more profitable have less debt, and the leverage and financial risk go along in a positive relation, which means financial risk is increased due to raised debt. The share of debt in the capital structure is the subjective perception of management toward risk; with the increasing level of debt, it can be stated that the management is optimistic, though it increases the financial risk as well.

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The capital structure–firm performance nexus has been well debated and researched all across the world with mixed results in different countries. Evidence from developing nations, including Sri Lanka and Nigeria, proved that debt is inversely related to the performance of the firms. On the other hand, studies from the U.S. proved that capital structure and profitability have a positive relationship. In Bangladesh, earlier studies have established the need to establish the optimal mix between debt and equity with a view to ensuring maximization of shareholder wealth while at the same time minimizing the cost of capital (Satyanarayana, 2023). Other studies conducted in Brazil and China also found mixed results where, in some cases, earnings were negatively correlated with short-term debt but positively correlated with long-term debt (Dodoo et al., 2023). These findings underline how complex the capital structure–firm performance relationship can be, and that it can differ considerably across countries and industries.

The most appropriate capital structure to be arrived at, according to financial managers, has to strike a perfect balance between debt and equity ratios, which greatly influences the risk profile and performance of companies. Authors have asserted that the literature highlights the fine balance that has to exist between debt and equity financing so that shareholder value would be maximized with reduced financial risks. Studies have documented that high debt-to-equity ratios are associated with poor performance, while equity financing is associated with good performance; the impacts vary with different levels of a firm's profitability. Indeed, capital structure, as measured by the proportion of total debt to total equity, is very important in determining the financial health and stability of any firm. Financial managers can use an extremely extended range of financial ratios and methodologies, such as quartile regression and artificial neural networks, to find a path leading towards correct decisions that would optimize capital structure and ensure the sustainable growth and creation of value within the company (Jesús et al., 2022; Ghardallou, 2022; Mohammad, 2023).

The research provides some insights into the complex capital structure, firm risk, and financial performance in various contexts. The various studies on manufacturing firms in Indonesia have brought out the fact that the determinants of the value of firms are financial performance, firm growth, and firm size. Similarly, a study carried out on Indonesian manufacturing firms reaches the conclusion that profitability, liquidity, tangibility of assets, and growth rate influence capital structure decisions, while business risk and firm size have limited influences on capital structure decisions (Muhammad et al., 2023). A study on the capital structure of the manufacturing firms listed in the Dhaka Stock Exchange has also highlighted how capital structure significantly impacts market-based performance metrics (Uddin, 2024). Another study on capital structure decisions by firms in Bangladesh has also highlighted the influence of liquidity, firm size, asset structure, non-debt tax shields, and age of operations, more so in politically empowered or family-run firms (Mohammad, et al., 2022). These collective findings underline the need to understand how capital structure affects firm risk and performance in the broad manufacturing sector, offering a strong avenue for further exploration and analysis. The relationship between capital structure, firm risk, performance, and control variables is illustrated in the diagram below:

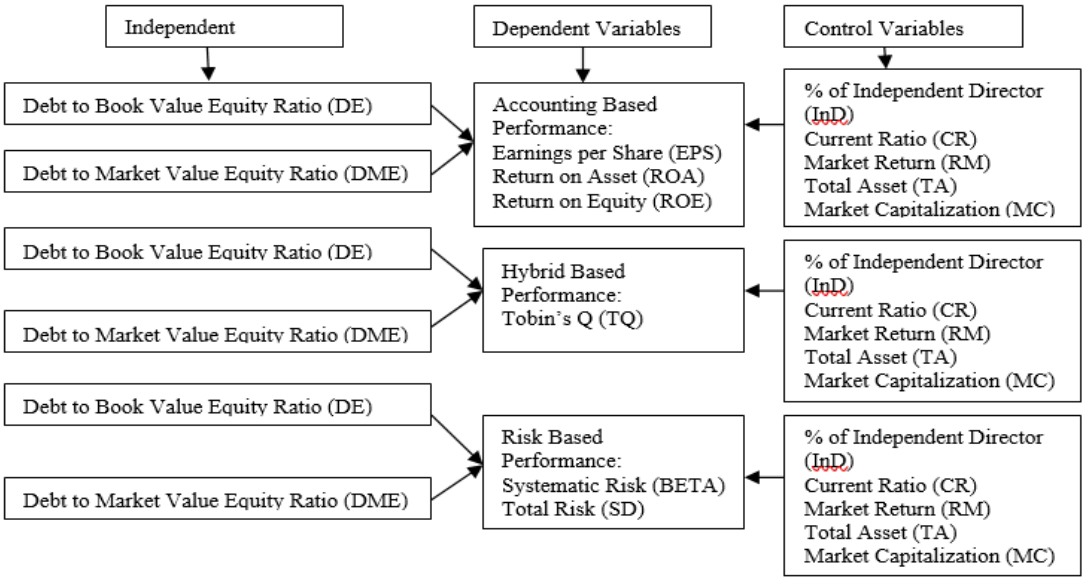

Figure 1: Conceptual framework

III. Methodology

This study concerns publicly traded manufacturing firms listed in Bangladesh, particularly with regard to data gathered from the Dhaka Stock Exchange for the 2017-2023 period, covering various manufacturing industries. In this study, the population consisted of 120 DSE-listed manufacturing companies based on data availability. The data were collected from DSE publications,

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Bangladesh Bank, and the annual reports of the sampled companies. The data used in this study were analyzed with the use of SPSS, Eviews 12.0, and Microsoft Excel software.

Based on the literature review, the following hypotheses were selected for further investigation as mentioned below:

H_1: The capital structure has impact on the firm performance.

H_{1a}: The capital structure affects the accounting-based firm performance.

H_{1b}: The capital structure affects the hybrid firm performance.

H_2: The capital structure has impact on the risk.

In the study, the researchers applied a multivariate OLS regression approach to test six distinct models that captured the relationships between the variables.

Model 1: $EPS_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$

Model 2: $ROE_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$

Model 3: $ROA_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$

Model 4: $TQ_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$

Model 5: $BETA_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$

Model 6: $SD_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$

Where:
α represents the constant term; β represents the slope or coefficient estimates of the explanatory variables; εit represents the standard error of the ith company for tth years; and the other variables are described in the conceptual framework.

IV. Results and Discussion

This dataset contains the statistical summary of a number of financial and performance variables for a group of publicly listed manufacturing companies in Bangladesh. The DB indicates an average of 2.23 with a high variance of 21.72. Thus it reflects that there is considerable variability amongst the companies. The DME is at an average of 1.36 also with a high variance. The EPS shows a wide dispersion with a mean of 5.28 and a variance of 318.57. Means for ROA and ROE are much lower at 0.04 and 0.06, respectively, with very low variability. Tobin's Q has a high mean of 3.83, though variance is extremely high at 172.21, showing wide fluctuations in market valuation. Systematic Risk and Total Risk have moderate variability. The percentage of independent directors has an average of 27% with low variance. The current ratio, market return, total assets, and the market capitalization show moderate means and variances, an indication of diverse financial health and market positions the firms hold.

Table 1 Descriptive Statistics result

Variables	Mean	Std. Deviation	Variance
Debt to Book Value Equity (DB)	2.23	4.66	21.72
Debt to Market Value Equity (DME)	1.36	4.51	20.34
Earnings Per Share (EPS)	5.28	17.85	318.57
Return on Asset (ROA)	0.04	0.10	0.01
Return on Equity (ROE)	0.06	0.36	0.13
Tobin's Q (TQ)	3.83	13.12	172.21
Systematic Risk (BETA)	1.16	2.57	6.60
Total Risk (SD)	0.49	0.38	0.14
% of Independent Director (InD)	0.27	0.09	0.008
Current Ratio	2.72	4.06	16.48
Market Return (RM)	0.06	0.15	0.225
Total Asset (TA)	23.21	1.95	3.80
Market Capitalization (MC)	22.32	1.87	3.49

Source: Calculated by the authors.

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Table 2 reveals a positive correlation between debt to book value and debt to market value. The link between the leverage measures, therefore, is established. Return on equity and return on assets are positively correlated to a very high level; hence, efficiency in the generation of returns is established. EPS correlates positively with ROE; total assets and market capitalization correlate very strongly with each other. Tobin's Q also demonstrates positive correlation with the Market-to-Book ratio, thus indicating higher valuation of companies with higher TQ values. These insights underline the complex interdependencies among financial indicators.

Table 2 Correlation result

Variables	DB	DME	EPS	ROA	ROE	TQ	BETA	SD	InD	CR	RM	TA
DME	.37**	1										
EPS	-.05	.05	1									
ROA	-.11**	-.11**	.43**	1								
ROE	-.12**	-.12**	.32**	.57**	1							
TQ	.11**	-.07	.01	.15**	.20**	1						
BETA	-.01	.04	-.07	-.01	-.15**	-.09*	1					
SD	.04	.03	-.16**	-.16**	-.24**	-.004	.25**	1				
In D	.08	.02	-.10*	-.07	-.05	-.01	.06	.05	1			
CR	.12**	.02	-.04	.03	.04	.24**	-.02	-.1*	-.01	1		
RM	.02	-.01	.01	-.05	-.003	-.03	.04	.03	.05	.01	1	
TA	-.12**	.23**	.40**	.21**	.1*	-.12**	.034	-.23**	-.18**	-.02	.02	1
MC	-.19**	-.17**	.49**	.45**	.32**	.29**	-.113**	-.19**	-.18**	.04	.01	.68**

Source: Calculated by the authors.

The researchers had checked for some important assumptions before performing the regression analysis: linearity, normality, homoscedasticity, multicollinearity, and independence of errors. From the results, there was no violation. Multicollinearity was checked through tolerance and variance inflation factors, which were all within the acceptable range and hence, there was no multicollinearity among the independent variables.

Table 3 presents a significant model of the regression analysis: $R^2 = 0.265$, $F = 29.783$, $p < 0.001$. This explains a reasonable proportion of the variability in Earnings Per Share. The significant predictors to explain EPS are DME with a positive coefficient, 0.578 ($p = 0.005$), and market capitalization with a coefficient strongly positive, 4.970 ($p < 0.001$). What this suggests is that firms with larger market capitalization and greater levels of debt, proxied by market value, generally tend to have a greater EPS. On the other hand, variables DE, In D, CR, RM and TA were unable to significantly predict EPS. While CR did return a negative coefficient with EPS (-0.315, $p = 0.053$), its effect was very small. These findings underline the greater importance of market valuation metrics in contrast to traditional financial ratios in the task of forecasting EPS. This is likewise consistent with the results obtained in previous work by Lanny et al. (2023) and Heliani et al. (2024).

Table 3 Regression Result of Accounting Based Performance-EPS

Model 1: $EPS_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$						
Variables	**Coef.**	**Std. Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
Constant	-111.381	9.792	-11.375	0.000**		
DB	0.030	0.159	0.186	0.853	.835	1.2452
DME	0.578	0.205	2.811	0.005**	.640	1.589
InD	-3.186	7.819	-0.407	0.684	.968	1.054
CR	-0.315	0.163	-1.938	0.053	.984	1.036
RM	0.914	4.906	0.186	0.852	.977	1.005
TA	0.320	0.584	0.547	0.585	.376	2.568

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MC	4.970	0.561	8.852	0.000**	.421	2.460
R^2	0.265					
Adjusted R^2	0.257					
F	29.783					
Prob. of F	0.000					

Source: Calculated by the authors.

Model 2 explains 12.6% of the variability in ROE, indicating significant results. The findings show a significant negative relationship between a company's total assets and its ROE, while there is a significant positive relationship between market capitalization and ROE. However, debt to book value and debt to market value do not significantly impact ROE. These results underscore the critical role of firm size and market valuation in determining ROE, aligning with the findings of prior studies (Amalia et al., 2023 and Tomislava et al., 2023). Overall, the analysis highlights the complex interplay between a company's characteristics and its financial performance metrics in shaping ROE.

Table 4 Regression Result of Accounting Based Performance-ROE

Model 2: $ROE_{it} = \alpha + \beta_1(DE)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$						
Variables	**Coef.**	**Std. Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
Constant	-0.966	0.214	-4.510	0.000**		
DB	-0.006	0.003	-1.827	0.068	.865	1.256
DME	0.005	0.004	1.164	0.245	.680	1.533
InD	-0.026	-0.026	-0.152	0.879	.934	1.077
CR	0.002	0.002	0.615	0.539	.972	1.054
RM	-0.005	-0.005	-0.048	0.962	.991	1.009
TA	-0.053	-0.053	-4.170	0.000**	.334	2.597
MCa	0.100	0.100	8.157	0.000**	.467	2.443
R^2	0.137					
Adjusted R^2	0.126					
F	13.051					
Prob. of F	0.000					

Source: Calculated by the authors.

Table 5 revealed the model is statistically significant and explains 22.1% of the variability in Return on Assets. The determinant key variables affecting the ROA are total assets and the market capitalization. The results infer that larger firms tend to have lower ROA, and those companies with higher market capitalization had a higher ROA. Conversely, debt ratios, board independence, current ratio, and market return have very small and insignificant effects on ROA. It is a result that corresponds with previous research (Goran, 2023) and still leaves a rather gray reflection of complex interrelations between various financial metrics of a company and its profitability.

Table 5 Regression Result of Accounting Based Performance-ROA

Model 3: $ROA_{it} = \alpha + \beta_1(DB)_{it} + \beta_2(DME)_{it} + \beta_3(InD)_{it} + \beta_4(CR)_{it} + \beta_5(RM)_{it} + \beta_6(TA)_{it} + \beta_7(MC)_{it} + \varepsilon_{it}$						
Variables	**Coef.**	**Std. Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
Constant	-0.411	0.054	-7.672	0.000**		
DB	-0.001	0.001	-1.023	0.307	.815	1.292
DME	0.001	0.001	1.309	0.191	.610	1.548
InD	-0.011	0.043	-0.265	0.791	.938	1.074

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CR	9.251E-5	0.001	0.104	0.917	.954	1.096
RM	-0.044	0.027	-1.652	0.099	.957	1.007
TA	-0.012	0.003	-3.864	0.000**	.366	2.548
MCa	0.033	0.003	10.687	0.000**	.431	2.410
R^2	0.230					
Adjusted R^2	0.221					
F	24.657					
Prob. of F	0.000					

Source: Calculated by the authors.

Hybrid model (Table 6): There are predicators of factors affecting Tobin's Q (TQ) based on the overall model, which is significant ($R^2 = 0.368$; adjusted $R^2 = 0.361$; $F = 48.055$; $p < 0$. Key predictors of TQ include Debt to Book Value (DE) with a coefficient of 0.256 ($p = 0.019$), Debt to Market Value (DME) with a coefficient of 0.682 ($p < 0.001$), Current Ratio (CR) with a coefficient of 0.574 ($p < 0.001$), Total Assets (TA) with a coefficient of -5.417 ($p < 0.001$), and Market Capitalization (MC) with a coefficient of 6.154 ($p < 0.001$). Whereas the predictors, namely InD, RM, and TA, were non-significant, the result also portrays low multi-collinearity since the VIF is small. From this finding, the rationale on how the TQ is determined with respect to market valuation metrics and other financial ratios is obvious, in relation to Sabau et al. (2024), Elsa et al., (2023), Harshita et al., (2023), and Agung, (2023).

Table 6 Regression Result of Hybrid Based Performance-Tobin's Q

Model 4: $TQ_{it} = \alpha+\beta_1(DE)_{it}+\beta_2(DME)_{it}+\beta_3(InD)_{it}+\beta_4(CR)_{it}+\beta_5(RM)_{it}+\beta_6(TA)_{it}+\beta_7(MC)_{it}+\varepsilon_{it}$						
Variables	**Coef.**	**Std. Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
Constant	-14.755	6.676	-2.210	0.027*		
DE	0.256	0.109	2.360	0.019*	.837	1.267
DME	0.682	0.140	4.870	0.000**	.627	1.543
InD	-1.014	5.331	-0.190	0.849	.938	1.069
CR	0.574	0.111	5.172	0.000**	.965	1.062
RM	-2.672	3.345	-0.799	0.425	.987	1.002
TA	-5.417	0.398	-13.596	0.000**	.353	2.578
MC	6.154	0.383	16.076	0.000**	.451	2.445
R^2	0.368					
Adjusted R^2	0.361					
F	48.055					
Prob. of F	0.000					

Source: Calculated by the authors.

From Table 7, the results from Model 5 are presented, whereby the overall model is significant in the analysis of factors affecting BETA. Key predictors are therefore Total Assets with a 0.369 coefficient having a p-value of < 0.001 and Market Capitalization with a coefficient of -0.415 having a p-value of < 0.001. The others - DE, DME, In D, CR, and RM - are not significantly affecting the systematic risk, evidenced by their non-significant p-values. In fact, this single-handedly identifies the firm size and market valuation as the main drivers of the systematic risk, while traditional financial ratios and governance metrics play a very minimum role in the same. The findings are in congruence with Paththamperuma, et al., (2024) and Rona, et al. (2024) and Wanqi (2023).

Table 7 Regression Result of Risk Based Performance-Systematic Risk

Model 5: $BETA_{it} = \alpha+\beta_1(DE)_{it}+\beta_2(DME)_{it}+\beta_3(InD)_{it}+\beta_4(CR)_{it}+\beta_5(RM)_{it}+\beta_6(TA)_{it}+\beta_7(MC)_{it}+\varepsilon_{it}$						
Variables	**Coef.**	**Std. Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
Constant	1.694	1.608	1.054	0.292		

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DE	-0.013	0.026	-0.502	0.616	.889	1.289
DME	-0.035	0.034	-1.024	0.306	.645	1.556
InD	2.079	1.284	1.619	0.106	.976	1.045
CR	-0.004	0.027	-0.134	0.894	.998	1.023
RM	-0.033	0.805	-0.041	0.967	.923	1.006
TA	0.369	0.096	3.847	0.000**	.356	2.544
MC	-0.415	0.092	-4.504	0.000**	.444	2.410
R^2	0.043					
Adjusted R^2	0.032					
F	3.745					
Prob. of F	0.001					

Source: Calculated by the authors.

The analysis of Risk Based performance in Model 6, where the overall model is significant: R^2=0.072, Adjusted R^2 =0.061, F = 6.432, p<0.001, indicates the key predictors affecting stock price volatility. In this regard, Debt to Market Value, having a coefficient of 0.010 and p = 0.035; Current Ratio, with a coefficient of -0.010 and p = 0.009; and Total Assets, a coefficient of -0.058 and p < 0.001, turn up significant on volatility. What this informs is that certain financial metrics are ultra-important in this context. In contrast, Debt to Book Value (DE), Independent Directors (In D), Market Return (RM), and Market Capitalization (MC) do not exhibit significant effects, suggesting the modest effect of traditional governance measures on market capitalization.

Table 7 Regression Result of Risk Based Performance-Systematic Risk

Model 6: $SD_{it} = \alpha+\beta_1(DE)_{it}+\beta_2(DME)_{it}+\beta_3(InD)_{it}+\beta_4(CR)_{it}+\beta_5(RM)_{it}+\beta_6(TA)_{it}+\beta_7(MC)_{it}+\varepsilon_{it}$						
Variables	**Coef.**	**Std. Error**	**t-Statistic**	**Prob.**	**Tolerance**	**VIF**
Constant	1.721	0.232	7.412	0.000**		
DE	-0.001	0.004	-0.395	0.693	.855	1.224
DME	0.010	0.005	2.109	0.035*	.665	1.566
InD	0.007	0.185	0.037	0.971	.985	1.033
CR	-0.010	0.004	-2.636	0.009**	.947	1.023
RM	0.025	0.116	0.213	0.832	.979	1.003
TA	-0.058	0.014	-4.176	0.000**	.368	2.522
MC	0.003	0.013	0.242	0.809	.455	2.470
R^2	0.072					
Adjusted R^2	0.061					
F	6.432					
Prob. of F	0.000					

Source: Calculated by the authors.

In short, the regression analyses found significant models, for financial performance measures. Earnings per Share were notably impacted by Debt to Market Value of Equity and market capitalization highlighting the significance of market valuation metrics in predicting EPS as shown in studies (Heliani et al., 2024; Muh et al., 2024). Return on Equity was significantly influenced by assets and market capitalization emphasizing the role of firm size and market valuation in determining ROE according to Muh et al., (2024). Similarly Return on Assets was mainly affected by assets and market capitalization indicating that larger firms typically show ROA while higher market capitalization is linked to a higher ROA as observed in work of Pardede et al., (2023). Additionally factors impacting Tobins Q included Debt to Book Value, Debt to Market Value, Current Ratio, Total Assets and Market Capitalization. This underscores the importance of market valuation metrics and financial ratios in determining this

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measure as highlighted by Pardede et al., (2023). Moreover systematic risk was primarily influenced by assets and market capitalization. The examination of risk related performance also indicated that Debt to Market Value, Current Ratio and Total Assets have an influence, on stock price fluctuations aligning with the conclusions drawn by Pardede et al., (2023).

V. Conclusion

This study offers an extensive analysis of the influence of capital structure on financial performance and risk of publicly listed manufacturing firms in Bangladesh. For this purpose, we use data from 120 firms listed on Dhaka Stock Exchange in a time period from 2017 to 2023 and employ six different multivariate regression models. The results show the significance of market valuation measures and firm size as determining factors of financial measures. Firstly, we found that Earnings per Share is significantly influenced by Debt to Market Value of Equity and market capitalization which supports the notion that these variables are important for forecasting EPS. Secondly, Return on Equity is significantly determined by total assets and market capitalization, which reveals an effect of firm size and market valuation upon profitability. Thirdly, Return on Assets is heavily dependent upon total assets where larger firms are generally observed to have lower ROA than smaller ones and market capitalization has positive relationship with ROA.

Furthermore, Tobin's Q is explained by several financial ratios, indicating the relevance of holistic financial indicators to measure the value of a firm. Systematic risk is fundamentally determined by Total Assets and Market Value of Equity, as proxies for size and market valuation, with the results indicating that these variables have an equally significant impact on risk exposure. Moreover, Debt to Market Value, Current Ratio and Total Assets are also material determinants for stock price volatility revealing similar results for performance-based framework. The findings imply important implications regarding the relations between the capital structure and financial performance with risk management. These insights are vital to investors and policy-makers since they identify how capital decisions can impact the performance of a firm as well as its level of risk exposure. The study contributes to the growing but still under-researched subject in Bangladesh; thus there should be more empirical testing focusing on sufficient optimal levels.

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