

Impact of Financial Leverage on Firm Performance: Evidence from Telecommunication Industry in Bangladesh

Md. Sajadul Islam Sarker & Fazly Ealahi Mamun

Abstract:

The study's objective is to investigate how significantly financial leverage affects business performance in Bangladesh's telecommunications sector. According to data from the past eleven years (FY 2010–2020), there is a considerable difference between short-term loans and long-term loans that affects the company performance of the Bangladeshi telecommunications sector. We have employed correlation, regression, and hypothesis testing to do quantitative analysis. In this paper, secondary data have been employed. Secondary information was gathered from the financial report and journals of the company. The findings imply a favorable association between the dependent and independent variables. It should be noted that both short-term and long-term loans are necessary for the Bangladeshi telecommunications sector to operate effectively. The findings also indicated that long-term loans are quite important. The study will provide information to policymakers to help them decide what type of financing is most important for enhancing business success. The study will make an effort to advance our understanding of the interplay between financial leverage and company performance in the telecommunications sector. Finally, we offered some suggestions on how to balance the financing between short-term loans and long-term debt, as well as how to improve business performance by utilizing firm money more quickly.



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1. Introduction:

Greater leverage often produces higher but more variable returns since fixed costs have an impact on shareholder returns (Gitman, Juchau, and Flanagan, 2015). The practice of using fixed costs to increase the impact of changes in EBIT on the company's EPS. Goldsmith and Lipsey (1963) contend that leverage ratio represents the firm's potential losses in meeting debt payment charges; high leveraged firms face a higher risk that reduced firm earnings during challenging market conditions. Leverage ratio suggests the effects of positive changes in price-earnings of various types of financing sources. Financial leverage, which is the amount of debt or credit used to buy assets, improve operational processes, or acquire a new company, is a very important external financing mode. Shahar, (2015) found that one of the greatest methods for businesses to fulfill their objectives and increase the value of the company is through financial leverage. We can simply measure the financial situation of the firm and determine the amount of borrowed funds used in the firm by using financial leverage ratios such the debt to equity ratio, short term debt ratio, and long term debt ratio. Kimathi et al. (2015) opined that financial leverage is the primary variable that determines whether an organization performs well or poorly, so a high rate of financial leverage will reduce firm profitability and a low level of financial leverage will boost it. For financial managers, selecting the proper capital structure combination is crucial. Sohail (2019) showed that if the capital structure is well organized, it will lower the cost of capital, which will raise the level of value of the firm. Financing decision is very important to improve the value of the company. Ikapel and Kajirwa (2017) stated that depending on the total amount of debt used, either short-term or long-term loans may have a negative impact on the company's financial performance. When debt exceeds equity, a company's performance declines along with other factors; conversely, when debt falls below total equity, a company's performance rises. Abu Rub (2012) contends that in order to achieve the primary objective of maximizing the firm's performance, financing decisions change when taking into account the risk associated with each financing option and adopting a financing mix (both debt and equity). Nwude (2003) postulated that higher leveraged businesses had higher fixed charge interest rates, lower profit and cash flow levels, and consequently lower dividend and share prices. Javed, et al. (2014) research on the impact of capital structure on firm performance: evidence from Pakistani firms identified that long-term debt has a significant negative impact on firm performance where ROA, ROE were used as dependent variables. Miras and Dsah (2015) have investigated the impact of debt level on firm profitability and liquidity of low market capitalized firms listed on the Kuala Lumpur stock exchange. The study used secondary data and revealed that debt financing is negatively correlated with Current Ratio, Quick Ratio, Return on Equity, and Return on Assets. Ikapel et al. (2014) explained the combination of capital structure choices made to increase business performance and liquidity while taking capital costs into account and using capital structure theories. Some research link financial leverage and company performance negatively, whereas other studies link debt financing and company performance favorably. The research question is to identify the impact of financial leverage on firm performance of telecommunication industry in Bangladesh. Thus, the study's overarching goal is to determine the impact of short-term loan, long-term loan, and firm size on firm performance in Bangladesh's telecommunications industry.

2. Literature Review:

Poursoleyman et al. (2022) reveal that greater reliance on financial leverage increases the convergence of using external sources of financing in the future, and researchers also found that debt-financing and equity financing are positively related to future investment. Sarwar et al. (2022) found that there is a positive relationship between corporate governance, leverage, and firm financial performance, based on rigorous analysis of seven Thai banks for the period

from 2009 to 2018. Towo (2022) opined that there is no positive relation between financial leverage and firm financial performance, and the researcher emphasized that organizations should focus more on internal sources of funding than external sources. They used 115 panel data sets from the period 2011 to 2014. Xiao et al. (2022) found that a low level of internal financing is more likely to converge to external sources of financing, as researchers conclude from the study of Chinese A-share non-financial listed companies from the period of 1998 to 2017. Bailey (2010) notes that short-term debt is primarily concerned with the analysis of decisions that affect the firm's performance, and short-term debt is a very important component for uninterrupted operation. Udeh et al. (2016) found that, when it comes to generating revenue, a company that is financed internally is preferable to one that is financed externally, so they suggest that choosing a better capital structure or financing decision will improve the firm's performance. Debt structure has a significant negative impact on firm performance, according to the model that estimates this impact. Cheong (2015) has explained that debt financing refers to the borrowing of funds from banks, non-banks, financial institutions or other companies in order to carry out business operations but borrowing funds is costly that's why choose a better capital structure decision. Khan (2012) has investigated and identified that there is a significant relationship between capital structure and firm performance and also identified that low levels of debt financing or low levels of leverage lead to higher profit effectiveness and, consequently, higher pharmaceutical company performance. Fong and Cheong (2015) found that debt financing has a positive and significant effect on firm performance and small industries in their research paper on the relationship between capital structure and firm performance. Long-term and short-term loans are used as independent variables, and ROA is used as a dependent variable. Harelimana (2017) found that there is a significant relationship between debt financing and firm performance and also identified that sound financial tools, policies, and good corporate governance are necessary for sound financial conditions and maximizing the profit margin. Chenhall et al. (2007) stated that accounting key performance indicators, including ROA, ROE, EBIT, and sales growth, are used to evaluate a company's financial success. Financial performance is a purely arbitrary indicator of how effectively a company can employ the resources of its core business objectives to create revenue. Financial performance can be used to contrast similar businesses and gauge both the total financial status and the capacity to meet liabilities. Crabtree and Busk (2008) showed that financial activity is referred to as "financial efficiency." The amount of financial goal achievement is referred to as "financial success." It is the process of calculating the monetary value of the outcomes of a firm's policies and operations. It can be used to compare similar companies within the same industry or to compare industries, as well as to gauge a firm's overall financial health over a specified period of time.

Conceptual Framework:

The theoretical model displays how the investigator has conceptualized the relationships between the study's variables. The considerable correlation between financial leverage and corporate performance was supported by earlier studies. However, firm features may also function as moderators in this association. This study also poses the possibility that corporations could improve their financial success by strategically coordinating decisions regarding capital structure. The framework integrates short-term debt to total assets and long-term debt to total assets into a single model, as shown in Figure 1.

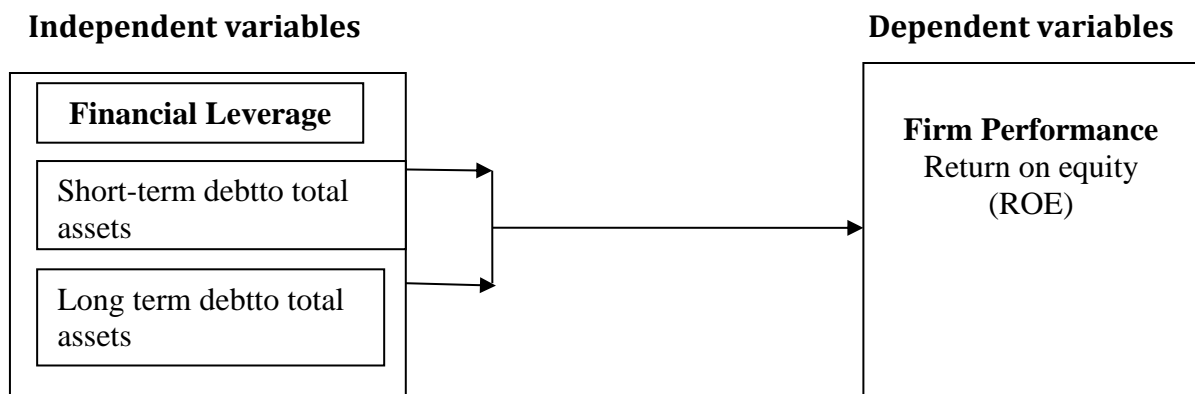


Figure 1: Conceptual Framework

From the conceptual framework illustrated in Figure, firm performance is independently affected by financial leverage which includes Short-term loan and Long term loan.

Hypothesis development:

Zeitun and Tian (2007) revealed that profitability was positively impacted by short-term debt, long-term debt had a large beneficial influence on business profitability, and total debt showed a considerable positive impact on firm profitability. Akeem et al. (2014) observe that a firm's financial performance and desired level of liquidity are both strongly impacted by short-term debt, which also ensures that there is the necessary amount of short-term debt present without negatively impacting revenue. A major part of a company's financial structure is its long-term debt. Jaramillo and Schiantarelli (2002) found that long-term financing is a source of funds that is collected for a long period of time, normally greater than one year. Long-term debt is used for acquiring fixed assets or covering fixed financial costs. Ikapel et al. (2017) examined evidence from companies in Brazil and Latin America about long-term debt and performance during times of crisis. In estimating the empirical results where independent variables are employed, such as return on assets, they used a least squares regression model to show that long-term debt has a detrimental impact on company performance (ROA). Adesina et al. (2015) revealed that the use of debt financing in their capital structure is recorded as better financial performance. Long-term debt has a positive impact on firm performance, which is measured by return on assets (ROA). Ikapel and Kajirwa (2017) found that long-term debt has a detrimental impact on a company's financial performance as measured by ROA, and they advise businesses to manage their capital structures carefully to reduce the risk involved with different types of financing. The impact of debt financing on business performance has a significant impact on the entire pharmaceuticals sector. Thus, this study developed the following hypothesis:

H_1 : There is a significant relationship between financial leverage and firm performance

3. Methodology of the study:

The study's goal is to determine how financial leverage affects financial performance in Bangladesh's telecommunications sector. The study is a correlative study in order to achieve the stated goals of the research design, which is to investigate the impact of financial leverage on company performance in the Bangladesh telecommunications industry. The secondary information required to complete the task was obtained from the annual reports published by the Bangladeshi telecommunications industry (GP, ROBI, and BSCCL). The data was gathered for research purposes from annual reports covering the eleven years corresponding to the various variables used in this study. Data from all factors that fall within the 2010–2020-time frames were considered in this study. In this study, financial leverage ratios (STD and LTD) are used as independent variables, and the return on equity (ROE) is used as a dependent variable.

Firm size is also included as an independent variable.SPSS 20 was used to analyze the data in accordance with some predetermined hypotheses.This study also employed statistical tools such as the correlation coefficient and the regression coefficient.

4. Statistical Results:

Using modified regression equations, the effect of financial leverage on business performance in Bangladesh's telecommunications industry is modeled. As a result, the effect of financial leverage on company performance is examined using balanced data from the annual report of the Bangladeshi telecommunications sector. According to the study, the following general empirical model was employed:

$$Y_{it} = \alpha + X_{it}\beta + \mu_{it}$$

Where t is the time period, t = 2010,....., 2020; X'it denotes a vector of independent variables; are coefficients to be estimated; is a constant term; and it is a composite error term. Yit is the dependent variable indicating firm performance of firm I at time t. The following table classifies and discusses the study's findings;

4.1 Descriptive statistics:

Table: 01

	Mean	Std. Deviation
ROE	.272094	.3077142
LTD	15481469.27	13688675.302
STD	38991956.00	32378482.349
SIZE	88491934.73	61469028.276

4.2 Correlation analysis:

Table: 02

Correlations					
	ROE	LTD	STD	SIZE	
Pearson Correlation	ROE	1.000	.283	.602	.359
	LTD	.283	1.000	.762	.850
	STD	.602	.762	1.000	.934
	SIZE	.359	.850	.934	1.000
Sig. (1-tailed)	ROE	.	.055	.000	.020
	LTD	.055	.	.000	.000
	STD	.000	.000	.	.000
	SIZE	.020	.000	.000	.

4.3 Coefficient of Correlation:

Table: 03

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.833	.694	.663	.1787354	.694	21.949	3	29	.000	.630
a. Predictors: (Constant), SIZE, LTD, STD										
b. Dependent Variable: ROE										

Table: 04

ANOVA						
Model		Sum of Squares	df	Mean Square	F	P value
1	Regression	2.104	3	.701	21.949	.000
	Residual	.926	29	.032		
	Total	3.030	32			
a. Dependent Variable: ROE						
b. Predictors: (Constant), SIZE, LTD, STD						

Table: 05

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Co linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.210	.057		3.686	.001		
	LTD	3.8649	.000	.172	.867	.393	.268	3.724
	STD	2.0278	.000	2.133	7.313	.000	.124	8.069
	SIZE	-8.9099	.000	-1.780	-4.954	.000	.082	12.240

a. Dependent Variable: ROE

4.4 Discussion: Financial leverage and business performance in the Bangladeshi telecommunications sector have been found to have a strong positive association, $R=0.833$ (Table: 03). By using various pertinent elements of financial leverage as the independent variable and ROE as the dependent variable, the subsequent multiple regression models have been created (table 05).

The standardized regression model is:

$$ROE = \alpha + \beta_1 LTD_{it} + \beta_2 STD_{it} + \beta_3 SIZE_{it} + \mu_{it} \dots$$

The fitted regression model is:

$$ROE = 0.210 + 0.172(LTD) + 2.133(STD) - 1.780(SIZE) + \mu_i$$

Where ,

β_1, β_2 & β_3 = coefficient of the variables

β_0 = Stands for the intercept term

μ_{it} = Random error term

ROE= Return on Equity

STD= Short -Term Debt

LTD= Long-Term Debt

The value of $R^2 = 0.694$ or 69.40% (table 03) indicates that 69.40% of the total fluctuation of ROE can be described by the aforementioned regression model, with the remaining 31.60% variation being explained by variables that are not included in the regression model, according to Kothari (2001). Since the adjusted value in this case is 0.663 or 66.30% (table 03), it is likely that adding additional independent variables will have no effect on the ability to explain variations in the dependent variable. The study is to investigate that financial leverage has a significant impact on firm performance of telecommunication industry in Bangladesh. To determine whether there is a statistically significant link between ROE and the two independent variables listed above, such as short-term and long-term loans, the F-test statistical approach was applied at a 5% level of significance. According to our analysis, the value of p (Significance) against all of the independent variables is 0.000 (table-04), which is less than 0.05. So the hypothesis is accepted that indicates independent variables and dependent variables have a significant relationship. It is possible to say that Return on Equity (ROE) is influenced by a number of independent variables, such as short-term loan and long-term loans.

Conclusions:

The study found a link between financial leverage and a company's financial performance. It should be noted that the telecommunications industry in Bangladesh is heavily reliant on short-term and long-term loans. The findings indicate that long-term loans are extremely important. An efficient and knowledgeable financial intermediary is required for effective financial leverage on firm performance. This study will be very useful for researchers and financial decision-makers who make financing decisions and deal with fund collection,

especially when debt financing is introduced. The study's findings will be useful to corporate managers in the Bangladesh telecommunications industry in making capital structure decisions and promoting a healthy telecommunications industry in Bangladesh. This study is critical for a financial manager to avoid hesitation about which sources of financing are better for the same industry. The study's limitation is that firm success is dependent not only on the sources of financing but also on other factors such as the amount of funds, investment, and operational efficiency. However, this paper only considers external sources of financing as a component of the capital structure that contributes to firm success in Bangladesh's telecommunications sector. The impact of operational efficiency and investment effectiveness on firm financial performance in that industry may be the focus of future research.

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