

Financial Leverage and Financial Performance of Quoted Industrial Goods Firms in Nigeria

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ABSTRACT

This study examined the relationship between financial leverage and financial performance of quoted industrial goods firms in Nigeria for a thirteen (13) year period covering from 2008-2020. Specifically, this study ascertained the relationship between Debt-to-Equity Ratio, Short-term Debt Ratio, Long-term Debt Ratio and Cash Value-added. Panel data obtained from the annual reports and accounts of fourteen (14) sampled quoted industrial goods firms were used in the study. The ex-post facto research design was employed. Inferential statistics using Pearson correlation coefficient, Multicollinearity test, and Panel Least Square (PLS) regression analysis were applied to test the hypotheses of the study. The results revealed that Debt-to-Equity Ratio and Long-term Debt Ratio significant negative relationship with cash value-added, while Short-term Debt Ratio significantly and positively relates with the cash value-added of quoted industrial goods firms in Nigeria at a 5% level of significance. The study recommended amongst others that firms need to look more closely at the company's ability to pay its debt obligations, by managing the use of assets and cash flows to reduce the firm's risk of loss from not paying a liability on time.

Keywords: Financial Leverage, Financial Performance, Industrial Goods Firms

1. Introduction

Financing decisions play a significant role in sustaining the profitability of firms in this era of globalization and the most competitive business world. The primary objective of every rational investor is to maximize expected returns on their investments within an acceptable level of risk. Thus, they prefer to invest their funds in shares of companies with increasing prices that will eventually boost their wealth in the stock market. Most investors prefer a persistent increase in the value of their shares in the stock market in order to earn more return on their investments and maximize their wealth. Financial leverage is a measure of how much a firm uses equity and debt to finance its assets. It refers to the application of debt financing and borrowed capital in an attempt to increase a firm's operations and profitability (Will, 2021). A firm is considered leveraged when the firm is partially financed by both debt and equity.

Debt bears a fixed cost. This means that when a firm increases its debt level, the financial leverage level increases. Leverage is the use of borrowed funds for investment purposes (Dinh & Pham, 2020). When a firm's management increases the firm's profit by using debt elements, it is an indication of quality corporate governance. A firm's investments can be financed by the use of either debt or equity. When a firm uses fixed-charged funds especially preference capital and debt along with the shareholder's equity this is referred to as financial leverage or gearing. When a company's capital structure is made of only shareholders 'or owners' equity only it's said to be unlevered firm whereas when a firm's capital structure is made of both debt and owners' equity it is said to be levered (Guner, 2016). Financial leverage can be in the form of a loan or form of debt (other borrowing). Financial leverage proceeds are reinvested to earn a greater return more than interest expense and cost incurred due to debt acquisition. This means that if a company's marginal rate of return on assets is higher than the company's marginal rate of interest expense payable on the debt, then the company should increase the debt level since it will also increase return on investment and cash value-added. Contrary, when the company's return on assets is lower than the interest rate payable on debt/loan acquisition, the firm should not borrow since borrowing will reduce the firms' returns.

Leverage gives room for increased returns to the investor, however, it can lead to greater potential loss especially when the investment becomes worthless and the borrowed amount has to be paid with the interest (Chakrabarti & Chakrabarti, 2019). This leads to potential financial risk that may lead to financial loss (Elgattani & Hussainey, 2020). The degree of this potential financial risk is associated with the company's capital structure. A firm's financial structure in most instances consists of preferred stock, common equity, and long-term and short-term liabilities.

Financial performance principally reflects business sector outcomes and results that show the overall financial health of the sector over a specific period of time. It indicates that how well an entity is utilizing its resources to maximize the shareholder's wealth and profitability. Financial performance is the extent to which a company's financial health over a period of time is measured. It is a financial action used in order to generate higher sales, profitability, and worth of a business entity for its shareholders through managing its current and non-current assets, financing, equity, revenues, and expenses. Its main purpose is to provide complete information to shareholders and stakeholders to encourage them in making decisions. It can be used to evaluate similar companies from the same industry or to compare industries in aggregation. Managing risk and increasing the profitability of a firm within the corporate governance compliance is the essence of making good decisions. In order to make a timely decision, accurate information and proper analysis of the sector is necessary. It is against this backdrop, that this study sought to investigate the relationship between financial leverage and financial performance of quoted industrial goods firms in Nigeria.

Statement of the Problem

When a company is profitable, it is easy to manage the debt and pay off the required interest. However, in case of a year of loss, it becomes a burden and can eat into the firm's equity. The debt holders have the first lien on the assets of the company. Should any problem arise, they are the first ones to have a claim over them. This has a multiplier effect in losses when compared to other firms that employed lesser debt. As a company increases its financial leverage, its capital structure changes. Taking too much debt increases the risk for equity because debt holders have a preference over equity holders. The increased equity risk increases the expected rate of return by the equity holders making the equity option more expensive. This also reduces the firm's valuation. Deciding the optimal capital structure is one of the essential obligations of the finance manager. An important financial decision which corporations must take is to decide on the percentage of equity and debt that will make up its capital structure as

well as decide on what share of corporate profits to be retained for reinvestment and what portion to be paid as dividend. Therefore, it becomes important to know how industrial goods firms finance their operations as well as what it is paying back to their equity investors in the form of a dividend to maximize long-term free cash flow and manage their relationships with all of their stakeholders.

Objectives of the Study

The main objective of this study is to ascertain the relationship between financial leverage and the financial performance of quoted industrial goods firms in Nigeria. The specific objectives are to:

1. Determine the extent of the relationship between the debt-to-equity ratio and cash value-added of quoted industrial goods firms in Nigeria.

2. Ascertain the degree of relationship between short-term debt ratio and cash value-added of quoted industrial goods firms in Nigeria.

3. Assess the magnitude of the relationship between long-term debt ratio and cash value-added of quoted industrial goods firms in Nigeria.

Research Hypotheses

The following null hypotheses were formulated to guide the study:

- Ho1: There is no significant relationship between the debt-to-equity ratio and cash value-added of quoted industrial goods firms in Nigeria.
- Ho₂: There is no significant relationship between the short-term debt ratio and cash value-added of quoted industrial goods firms in Nigeria.
- Ho3: There is no significant relationship between long-term debt ratio and cash value-added quoted industrial goods firms in Nigeria.

2. Review of Related Literature

Conceptual Review

Financial Leverage

Financial leverage is the use of borrowed money (debt) to finance the purchase of assets with the expectation that the income or capital gain from the new asset will exceed the (cost of borrowing. Adam, 2021). Leverage is an investment strategy of using borrowed money, specifically, the use of various financial instruments or borrowed capital to increase the potential return of an investment. Leverage can also refer to the amount of debt a firm uses to finance assets. Leverage results from using borrowed capital as a funding source when investing to expand the firm's asset base and generate returns on risk capital (James, 2021). Financial leverage which is also known as leverage or trading on equity refers to the use of debt to acquire additional assets (Hayes, 2021). Financial leverage is the use of debt to buy more assets. Leverage is employed to increase the return on equity. However, an excessive amount of financial leverage increases the risk of failure, since it becomes more difficult to repay debt (Will, 2021). The use of financial leverage to control a greater amount of assets (by borrowing the money) will cause the returns on the owner's cash investment to be amplified. That is, with financial leverage:

I. an increase in the value of the assets will result in a larger gain on the owner's cash when the loan interest rate is less than the rate of increase in the asset's value.

II. a decrease in the value of the assets will result in a larger loss of the owner's cash (Kenton, 2021).

Debt-to-Equity Ratio

The debt-to-equity ratio (D/E) is a financial ratio indicating the relative proportion of shareholders' equity and debt used to finance a company's assets (Manglik, 2020). The Debt to Equity ratio is a leverage ratio that calculates the weight of total debt and financial liabilities against total shareholders' equity (Rohit, 2020). The debt to equity ratio is a financial, liquidity ratio that compares a company's total debt to total equity. The debt to equity ratio shows the

percentage of company financing that comes from creditors and investors. A higher debt to equity ratio indicates that more creditor financing (bank loans) is used than investor financing (shareholders).

Short-term Debt Ratio

Short-term debt, also called current liabilities, is a firm's financial obligations that are expected to be paid off within a year (Chad, 2021). Short-term debt is defined as debt obligations that are due to be paid either within the next 12-month period or the current fiscal year of a business. Short-term debts are also referred to as current liabilities. They can be seen in the liabilities portion of a company's statement of financial position (Langager, 2021).

Short-term debt may exist in several different forms. Some of the most common examples of short-term debt include: (James, 2021)

Accounts Payable –Accounts payable includes all the money a company owes through ordinary credit purchases from suppliers, such as purchases from wholesalers to stock its products. It also includes monthly bills, such as utility bills and office rent.

Short-Term Loans– A company often needs to take out a short-term loan from a bank or other lending institution to help it bridge a cash flow problem. If a company is having trouble collecting its accounts receivable, that can make it difficult to cover its accounts payable. The company may take out a short-term loan, such as a 90-day note, which is due to be repaid within three months.

1. Commercial Paper – Instead of taking out a bank loan, some companies choose to issue commercial paper – unsecured promissory notes that typically come due in nine months or less.

2. Lease Payments— It is common for many companies to lease, rather than purchase, the payments on such leases that are due within the next 12 months are a component of the company's short-term debt.

3. Taxes Due – The tax component of short-term debt includes any local, state, federal, or other types of taxes that a company may owe that are due to be paid within the current year.

4. Salaries and Wages – All salaries due to be paid to employees within the current year are also considered part of short-term debt.

5. Dividends – If a company has declared, but not yet paid, dividends to its shareholders, the dividends are part of the company's short-term debt.

Short-term Debt Ratio = Short-term Debt Total Assets

Long-term Debt Ratio

Long-term Debt (LTD) is any amount of outstanding debt a company holds that has a maturity of 12 months or longer. It is classified as a non-current liability on the company's statement of financial position. A debenture is a long-term debt instrument issued by corporations and governments to secure fresh funds or capital (Waingankar, 2021). Long-term debt is the debt taken by the company which gets due or is payable after the period of one year on the date of the statement of financial position and it is shown in the liabilities side of the statement of financial position of the company as the non-current liability (Tuovila, 2021). Long-term debt is debt that matures in more than one year. Long-term debt can be viewed from two perspectives: financial statement reporting by the issuer and financial investing. In financial statement reporting, companies must record long-term debt issuance and all of its associated payment obligations on its financial statements. On the flip side, investing in long-term debt includes putting money into debt investments with maturities of more than one year (Averkamp, 2021)

In accounting, long-term debt generally refers to a company's loans and other liabilities that will *not* become due within one year of the statement of financial position date. (The amount that will be due within one year is reported on the statement of financial position as a current liability). Long-term debts on a statement of financial position are those loans and other liabilities, which are not going to come due within one (1) year from the time when they are

created. In general terms, all the non-current liabilities can be called long-term debts, especially to find financial ratios that are to be used for analyzing the financial health of a company (Roshan, 2021).

Long-term Debt Ratio =

Long-term Debt Total Assets

Financial Performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It is also used as a general measure of a firm's overall financial health over a given period (Eshna, 2021). Financial performance is a complete evaluation of a company's overall standing in categories such as assets, liabilities, equity, expenses, revenue, and overall profitability. It is measured through various business-related formulas that allow users to calculate exact details regarding a company's potential effectiveness (Verma, 2021).

Financial performance refers to the degree to which financial objectives have been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure a firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Kenton, 2021). There are many stakeholders in a company, including trade creditors, bondholders, investors, employees, and management. Each group has its own interest in tracking the financial performance of a company. The financial performance identifies how well a company generates revenues and manages its assets, liabilities, and the financial interests of its stake- and stockholders (Will, 2021). There are many ways to measure financial performance, but all measures should be taken in aggregate. Line items, such as revenue from operations, operating income, or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt (Scott, 2021).

Cash Value-added (CVA)

Cash value-added (CVA) is a measure of a company's ability to generate cash flow above and beyond the required return to its investors (Leigh, 2021). A high CVA indicates a company's ability to produce liquid profits from one financial period to another. Cash value-added also can be the measure of a company's performance that looks at how much money a company generates through its operations. Generally, a high cash value-added figure is beneficial for both companies and investors, as it demonstrates a company's ability to generate cash from one financial period to another, creating solid-liquid profits (Bloomenthal, 2021).

The cash value-added metric is one way to measure the real profitability of a business, beyond what is required to pay the bills and satisfy the investors (Stapleton, 2021).

CVA = gross cash flow - economic depreciation - capital charge

Where:

Economic depreciation is [WACC / (1+WACC)^n -1]

Gross cash flow is adjusted profit + interest expense + depreciation

The capital charge is the cost of capital x gross investment

3. Methodology

This study employed *Ex-post facto* research design. The population of the study consisted of all sixteen (16) quoted industrial goods firms in Nigeria. Purposive sampling technique was adopted to select the sample size of fourteen (14) quoted industrial goods firms that were continuously listed by Nigeria Stock Exchange during the period 1st January 2008 to 31 December 2020 and whose financial statements and reports are available and have been consistently submitted to Nigerian Stock Exchange for the period of study. The study utilized secondary data that were extracted from the annual reports and statements of account of the sample quoted industrial goods firms.

The dependent variable of this study is Financial Performance which was measured using Cash Value-added while Debt-to-Equity Ratio, Short-term Debt Ratio, and Long-term Debt Ratio served as proxies for the independent variable which is Financial Leverage

Table 3.1 Variable Measurement

Variable	Acronym	Measurement		
Independent (Financial Leverage)				
		Total Liabilities		
Debt-Equity Ratio	DER	Total Shareholders' Equity		
		Short-term Debt		
Short-term Debt Ratio	STDR	Total Debt		
		Long-term Debt		
Long-term Debt Ratio	LTDR	Total Debt		
Dependent Variable				
		Gross Cash Flow - Economic Depreciation -		
Cash Value-added	CVA	Capital Charge		

Model Specification

This study adapted and modified the model of Abubakar & Garba (2019) in determining the relationship between financial leverage and financial performance of quoted industrial goods firms in Nigeria:

 $ROA = \beta 0 + \beta 1 LTDR + \beta 2 STDR + \mu$

The modified model used for the study is shown below as thus:

 $CVA = \beta 0 + \beta 1 DER_{it} + \beta 2 STDR_{it} + \beta 3 LTDR_{it} + \mu_{it}$

Where:

βo = Constant term

 $\beta_1 - \beta_3$ = Regression coefficient of the independent variable

 μ_t = Error Term of firm i in period t

- i = individual firms (1,2,3...14)
- t = time periods (2008, 2009 ... 2020)
- CVA_{it} = Cash Value-added of firm i in period t
- DER_{it} = Debt-to-Equity Ratio of firm (in period t
- STDR_{it} = Short-term Ratio of firm (in period t
- $LTDR_{it}$ = Long Term Ratio of firm i in period t

4. Data Presentation and Analysis

	CVA	DER	STDR	LTDR
Mean	0.124615	1.849231	4.183077	7.133077
Median	0.120000	0.950000	4.560000	7.050000
Maximum	0.160000	5.870000	6.580000	15.15000
Minimum	0.100000	0.110000	1.460000	3.270000
Std. Dev.	0.018081	1.772265	1.521153	3.284259
Skewness	0.416760	1.276022	-0.211286	1.026545
Kurtosis	2.017370	3.164987	2.056191	3.779024
Jarque-Bera	0.899338	3.542582	0.579227	2.611945
Probability	0.637839	0.170113	0.748553	0.270909
Sum	1.620000	24.04000	54.38000	92.73000
Sum Sq. Dev.	0.003923	37.69109	27.76688	129.4363
Observations	182	182	182	182

Table 4.1 Descriptive Statistics of Study Variables

Source: E-Views 10.0 output, 2021

Interpretation

This study considered descriptive statistics (mean, standard deviation, minimum and maximum) for the panels for 182 firm-year observations (that is, 14 firms x 13 years). Table 2 depicts CVA of an average of 0.1246 with a minimum of 0.1000, a maximum of 0.16000, and a standard deviation of 0.0181. DER was on the average of 1.8492 with a standard deviation of 1.7722, a minimum of 0.1100, and a maximum of 5.870. On average, STDR stood at 4.1830, the minimum STDR stood at 1.4600 while the maximum STDR stood at 6.5800 of the firms under study. Similarly, on LTDR the results showed that on average the mean value is approximately 7.133077, with a standard deviation of 3.2842.

Table 4.2 Pearson Correlation Matrix

	CVA	DER	STDR	LTDR
CVA	1.0000			
DER	0.2953	1.0000		
STDR	-0.1687	0.3888	1.0000	
LTDR	-0.2870	0.2545	0.5822	1.0000

Source: E-Views 10.0 output, 2021

The Pearson correlation resultant output shows that there is a positive relationship between CVA and DER (0.2953). On the other hand, CVA negatively correlates with STDR (-0.1687) and LTDR (-0.2870).

Table 4.3 Test of Multicollinearity

Variance Inflation Factors				
Date: 11/19/21 Time:	13:47			
Sample: 2008 2020				
Included observations: 13				
	Coefficient	Uncentered	Centered	
Variable	Variance	VIF	VIF	
С	0.000247	9.729711	NA	
DER	1.03E-05	2.571326	1.179794	
STDR	1.98E-05	15.34314	1.669122	
LTDR	3.86E-06	9.256172	1.514863	

Source: E-Views10.0 output file, 2021

Multicollinearity exists in a model if the Centered VIF is greater than 10 ((Mishra & Alok, 2011). Table 4 shows that the variance inflation factors (VIF) for the study variables are less than 10 respectively as revealed by the values of the Centered VIF. This is an indication of the non-existence of multicollinearity among the variables in the model

Test of Hypotheses

- Ho1: There is no significant relationship between the debt-to-equity ratio and cash value-added of quoted industrial goods firms in Nigeria.
- Ho₂: There is no significant relationship between the short-term debt ratio and cash value-added of quoted industrial goods firms in Nigeria.
- Ho3: There is no significant relationship between long-term debt ratio and cash value-added quoted industrial goods firms in Nigeria.

Table 4.4 Panel Least Square Regression Analysis testing the relationship between DER, STDR, LTDR, and CVA

Dependent Variable: C	VA			
Method: Panel Least Squares				
Date: 11/19/21 Time: 13:50				
Sample: 2008 2020				
Periods included: 13				
Cross-sections included: 14				
Total panel (balanced)	observations: 182		·	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.149043	0.035704	4.174370	0.0000
DER	-0.240209	0.089194	-2.693097	0.0078
STDR	0.124954	0.026321	4.747238	0.0000
LTDR	-0.169621	0.063447	-2.673418	0.0082
			1	1
R-squared	0.509148	Mean dependent var		0.136459
Adjusted R-squared	0.477551	S.D. dependent var		0.125188
S.E. of regression	0.125659	Akaike info criterion		-1.288751
Sum squared resid	2.810670	Schwarz criterion		-1.218333
Log-likelihood	121.2763	Hannan-Quinn criteria		-1.260204
F-statistic	13.47815	Durbin-Watson stat		1.593007
Prob(F-statistic)	0.000000			

Source: E-Views10.0 output file, 2021

Interpretation of Regression Result

Table 5 proves that the functional relationship between the dependent and independent variables is:

CVA = 0.149043 - 0.240209 DER + 0.124954 STDR - 0.169621 LTDR

The implication of the regression model is that a unit increase in DER and LTDR will cause CVA to reduce by 24% and 17% respectively, while a unit increase in STDR will exert a 12% increase in CVA. The beta coefficient of the variables shows that; β_1 is -0.240209; β_2 = 0.124954; β_3 = -0.169621. The slope coefficients indicate that X_1 = 0.0078< 0.05; X_2 = 0.0000< 0.05; X_3 = 0.0082<0.05. This implies that DER and LTDR are negatively and significantly correlated with the CVA of quoted industrial goods firms in Nigeria. On the other hand, a positive and significant relationship exists between STDR and CVA. As evident in table 5, the adjusted R² is 0.477551. This means that approximately 48% of the variations in the sampled firms' CVA can be explained jointly by DER, STDR, and LTDR. The overall regression result with a P-Value = 0.000000 evidenced that DER, STDR, and LTDR exhibit a significant relationship with CVA.

Decision

The regression result with P-value = 0.000000 provides a basis for accepting the alternative hypotheses, which states that Debt-to-Equity Ratio, Short-term Debt Ratio, and Long-term Debt Ratio have a significant relationship with cash value-added of quoted industrial goods firms in Nigeria at 5% level of significance.

5. Conclusion and Recommendations

This study assessed the nexus between financial leverage and financial performance of quoted industrial goods firms in Nigeria for a thirteen (13) year period covering from 2008-2020. The independent variable (financial leverage) was proxied by Debt-to-Equity Ratio, Short-term Debt Ratio, and Long-term Debt Ratio, while the dependent variable (financial performance) was measured with Cash Value-added. The study obtained data from annual reports and accounts and publications of the industrial goods firms that operated during 2008-2020. With the aid of E-Views 10.0, Descriptive Statistics of this study were applied, while Inferential Statistics using Pearson correlation coefficient, Multicollinearity test, and Panel Least Square regression analysis were employed. This study revealed that the Debt-to-Equity Ratio and Long-term Debt Ratio have a significant negative relationship with cash value-added, while the Short-term Debt Ratio significance. Conclusively relates with cash value-added of quoted industrial goods firms in Nigeria at a 5% level of significance of quoted industrial goods firms in Nigeria.

On the premise of the study findings, the following recommendations were made:

- 1. Firms need to look more closely at the company's ability to pay its debt obligations by managing the use of assets and cash flows to reduce the firm's risk of loss, in an attempt to reverse the negative relationship between debt-to-equity ratio and cash value-added, from not paying a liability on time. Well-managed assets and liabilities involve a process of matching offsetting items that can increase business profits.
- 2. It is recommended that firms should continuously use short-term debt to ensure that cash is always available to satisfy the operating capital needs of a business.
- 3. Industrial goods firms should employ financing means that can improve the earnings per share, market capitalization, and enhance the value of the firm for the benefit of its stakeholders in order to reverse the negative relationship between long-term debt and cash value-added.

References

- Abubakar, A., & Garba, A. (2019). Financial leverage and financial performance of quoted services firms in Nigeria. *Nigerian Journal of Management Technology & Development*, 4(2): 8–13.
- Adam H. (2021). Leverage. https://www.investopedia.com/terms/l/leverage.asp. Retrieved 26/08/2021.
- Averkamp, H. (2021). What is long-term debt? https://www.accountingcoach.com/blog/what-is-long-term-debt. Accessed 09/06/2020.
- Bloomenthal, A. (2021). Cash value-added. https://www.investopedia.com/terms/c/cva.asp. Accessed 22/07/2021
- Chad, L. (2021). What is the short/current long-term debt account? https://www.investopedia. com/ask/answers /06/currentportionlongtermdebt.asp. Accessed 23/07/2021
- Chakrabarti, A., & Chakrabarti, A. (2019). The capital structure puzzle evidence from the Indian energy sector. International Journal of Energy Sector Management, 13(1): 2-23.
- Dinh, H. T., & Pham, C. D. (2020). The effect of capital structure on the financial performance of Vietnamese listing pharmaceutical enterprises. *Journal of Asian Finance, Economics, and Business*, 7(9): 329-340.
- Eshna, V. (2021). Financial performance: Understanding the concepts and its areas. https://www.simplilearn.com /financial-performance-rar21-article. Retrieved 10/09/2021
- Guner, A. (2016). The determinants of capital structure decisions: New evidence from Turkish Companies. *Procedia Economics and Finance*, 38: 84-89.
- Hayes, A. (2021). Leverage. https://www.investopedia.com/terms/l/leverage.asp. Retrieved 26/08/2021.
- James, M. (2021). Leverage. https://www.investopedia.com/terms/l/leverage.asp. Retrieved 26/08/2021.
- Kenton, W. (2021). Borrowed funds. https://www.investopedia.com/terms/b/borrowed-capital.asp.Retrieved 26/08/2021.
- Langager, C. (2021). What is the short/current long-term debt account? https://www.investopedia.com /ask/answers/06/currentportionlongtermdebt.asp. Accessed 23/07/2021.
- Leigh, R. (2021). What does cash value-added mean? https://smallbusiness.chron.com/cash-value-added-cva-mean-20290.html. Accessed 23/06/2021.
- Manglik, R. (2020). Debt-equity ratio.JAIIB 2020 | Latest Edition Practice kit with Mocks & Chapter-wise Test. EduGorilla.
- Mishra, S.B., & Alok, S. (2011). Handbook of research methodology. A compendium for scholars & researchers (Based on the revised syllabus of research methodology of various universities). Educreation Publishing
- Rohit, M. (2020). Debt-equity ratio.JAIIB 2020 | Latest Edition Practice kit with Mocks & Chapter-wise Test. EduGorilla.
- Roshan, W. (2021). Long-term debt. https://www.wallstreetmojo.com/long-term-debt/. Accessed 11/07/2021.
- Scott, G. (2021). Financial performance. https://www.investopedia.com/terms/f/financialperformance.asp. Accessed 17/06/2021.
- Stapleton, C. (2021). Cash value-added. https://www.investopedia.com/terms/c/cva.asp. Accessed 22/07/2021.
- Verma, E. (2021). Financial performance: Understanding the concepts and its areas. https://www.simplilearn.com/ financial-performance-rar21-article. Retrieved 10/09/2021.

Waingankar, R. (2021). Long-term debt. https://www.wallstreetmojo.com/long-term-debt/. Accessed 11/07/2021.

Will, K. (2021). Borrowed funds. https://www.investopedia.com/terms/b/borrowed-capital.asp. Retrieved 26/08/2021