Assessing the Role of Financial Indicators in Shaping the Value of Real Estate Companies: Insights from India

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ABSTRACT

This study sought to look at the link between enterprise value (EV) and financial leverage (FL), interest coverage ratio (ICR), and total assets (TA) by analyzing data from a certain group of companies that are featured in the Nifty Realty Index. The study makes use of a panel data analysis to analyze the financial information extracted from the CMIE database for the period 2015–2022. In order to conduct the research, ten different companies were selected utilizing the convenience sample approach. The phrase ratio of debt to equity was used to define the level of the company's debt, and the EBIT to interest expenditure ratio was used to characterize the interest cost ratio (ICR). The company size was represented by size as a proxy of (TA). As the control variable, we made use of return on equity (ROE), which is yet another statistic that has been demonstrated to be significant in the research literature for determining the worth of a corporation. In order to conduct an analysis of the data that was gathered, the SPSS software suite was utilized. We estimated the correlation coefficients by making use of the pairwise correlation matrix in order to determine the degree to which FL, ICR, TA, and ROE are able to accurately forecast firm value. According to the results of the step-wise regression test, the influence of both (FL) and (ICR) on the value of the company is, if any, negligible. In spite of this, there is a correlation between TA and the value of the company when ROE is employed as a control variable. In spite of the fact that FL, ICR, TA, and firm value were all taken into consideration, the findings of the pairwise correlation demonstrated that the variables do not follow a straight line. In order to reach the desired capital structure, the management of these companies was suggested that they cut down on the long-term debt they took on and instead think about issuing more stock. The level of financial leverage would be reduced as a result of this. Due to the fact that this indicator has a history of being unreliable, management should avoid using the current levels of financial leverage as a proxy for understanding the future worth of the organization. To figure out what the average best capital structure is, for each of the three categories of companies-mid-capitalization, low-capitalization, and high-capitalization-there is a possibility that future study will consider employing a larger sample size and a random sampling selection approach. When preparing for future study, it is possible to utilize a more extended time frame.

Key words: Capital Structure, Real Estate Sector, Firm Value, FL, ICR, TA, ROE

1. Introduction

1.1 **The Indian Realty Sector**

Increasing success throughout the last many years and a variety of segments contributing to the industry suggest that real estate will be a key contributor to India's economic growth in the coming years. The market for property is high in India owing to the nation's comparably young population and its rapid urbanization. One of India's most lucrative industries, real estate is crucial to the country's thriving business sector. When it comes to generating new jobs, the real estate business in India is second largest only to agriculture. Additional NRI (non-resident Indian) investment is forecasted for this industry in the near and distant future.

Depending on the specifics of the transaction at hand, many subsectors of the real estate industry may specialize in either land or buildings, or both. The construction sector is in charge of seeing real estate developments through to fruition during the development phase. The term "real estate market" refers to the aggregate of the industry's buying, selling, and financing activities. Residential, office, commercial, and retail real estate are the several submarkets that make up the market. Sometimes housing can also be used interchangeably for properties.

There have been numerous real estate market booms and busts since 1990. It's interesting to note that each of these has been prompted by a major event. In 1992, regulations were loosened to make it easier for non-resident Indians to invest in Indian real estate. The first bull-run began in 1993 as a result of this crucial move and lasted until the developing market crisis in 1995. Many non-resident aliens had their first taste of Indian real estate purchases between 1993 and 1995. The United States government initiated a major influx of cash to help with the housing problem. As a result of many countries imitating the big daddy, global money once again finding its way into the Indian real estate market by way of real estate funds, HFCs, and other financial institutions. Real estate prices and volumes increased dramatically again after the recession of 2009.

1.2 Current state of Indian Real Estate Sector

After 2014, there was a thrust on infrastructure and housing sector due to major change in policy and policy makers in favor of realty sector. NITI Ayog had also supported with many developmental activities for the growth of Indian Real Estate of the country and the smart city mission along with Pradhan Mantri Awas Yojana have been impelled in the country. During the year 2016, the Real Estate (Regulation and Development) Act, 2016 has been executed to safeguard the interest of buyers and for speedy redressal of grievances. In the year 2019, Real Estate Investment Trust (REIT) got launched. However, Pandemic of Coronavirus slowed down the construction accomplishments in the year 2020, but digitization got boosted in the Indian Real Estate Sector as a post implication of outbreak. Real Estate Sector is going to be renovated due to application of new artificial intelligence based construction technology like video walkthrough, making of smart homes etc.

The Indian economy is projected to experience substantial growth by the year 2047, with the real estate sector playing a pivotal role in driving this rise. This sector will experience growth at a multiplier rate in order to meet the expanding requirements of the economy and the consumption needs of individuals. According to a survey, it is projected that the real estate market in India will witness significant growth and reach a valuation of \$ 1 trillion (\$10,000 crores by the year 2030 contributing around 20 % of GDP of the country and by 2047 it will reach to around \$ 5. 8 trillion (\$58,000 crores) by 2047 coinciding with the nation's centennial celebration of independence. The present valuation of the real estate market is approximately \$0.33 trillion.

1.3 Significance of Financing Decision for Wealth Maximization , Creating Firm Value and Financing Structure

The company's capital structure is built upon the financing decisions. By allocating capital wisely between equity and debt, the finance decision seeks to maximize the firm's worth. The shareholder's wealth can be maximized and firm's value can be increased with the appropriate financing decisions. Maximization of wealth of shareholders is nothing but high net worth of companies. Wealth Creation = PV of cash inflows - Cost of investment. The wealth development of companies is greatly influenced by the debt to equity mix. The effective cost of debt is reduced and interest paid is tax deductible, therefore firms use debt capital more frequently in their capital structures to maximize shareholder wealth. Because debt investors are only entitled to interest on their investment and not a share in the profit, equity holders get a larger portion of the profit. However, the firm's risk level will increase due to the high share of borrowed capital in the capital structure. Due do more risk, the shareholders will demand premium on that and resulting higher cost of capital. According to Damodaran (2009) companies would capitalize in projects that produce a profit larger than the minimum tolerance rate. To avail the benefits of sustainability and growth, the firms continuously invest. Therefore, firms' financing decisions are important. In what way capital structure policy is significant for survival of the firms? Despite much study in the field of finance, this question has not been answered. The ideal capital structure should be defined in an effort to provide a solution to an unanswered question. To maximize market value while minimizing cost of capital, a company needs an optimal capital structure, which is the best combination of debt, preferred stock, and equity. Since interest payments on debt are tax deductible and dividends are paid out of after-tax income, debt is a more cost-effective investment than equity. Regrettably, the ideal capital structure in the actual world cannot be guided by a predetermined debt-to-equity ratio. An optimal debt-to-equity ratio varies not only across industries and types of businesses, but also during a firm's life cycle and in response to external factors like interest rate fluctuations and regulatory shifts. Typically, investors are eager to put their money into businesses that have strong financial positions. Typically, a strong balance sheet will show a lower ratio of debt to equity.

2 Review of Literature

Anshu Handoo and Kapil Sharma (2014) analyzed that the capital structure of an Indian company that included 870 companies for the time span of 2001 to 2010. In their analysis, they have utilized multiple regression. Under all three models of dependent variables - short-term, long-term and total debt ratio - the authors have arrived at the conclusion that profitability, tax rate, and asset tangibility are having a major impact on the capital structure choice of the organization. Under all three models of dependent variables—the short-term debt ratio, the long-term debt ratio, and the total debt ratio—the liquidity of the company does not have a substantial impact on the capital structure choice that the company makes. In contrast, the size of the company has a considerable impact on the capital structure option that the company makes when using the short-term debt ratio and the total debt ratio models, but it has no impact whatsoever

when using the long-term debt ratio model. Under the Long-term debt ratio and Total debt ratio models, growth has a considerable impact on the capital structure choice of the organization. However, under the Short-term debt ratio model, growth has no impact all.

Bhaduri, S. N. (2002). Has identified Long term borrowing (LTB) and Short term borrowing (STB) as a dependent variable for the purpose of recognizing the influence of independent variables on LTB and STB variable for the capital structure of Indian corporate firms with sample size of 697 manufacturing and non-financial firms for the period of 1990-1998.GMM is used for data analysis. The relationship between Profitability and NDTS is negative and insignificant for both LTB as well as STB.However, the relationship between size and LTB is insignificant whereas it is significant with STB. However, the association amid Tangibility of Asset is significant for both LTB as well as STB.

Dhodary, S. (2019) executed multiple regression investigation to define the association of Dependent variables and Independent variables of financia structure of 11 trading and industrial enterprises of Nepal for 2006-2016. The selections of dependent variables are: 1. Short -term leverage = Short term debt/ Total assets 2. Long -term leverage = Long-term debt/ Total assets 3. Total leverage = Total Debt/ Total assets. The empirical result shows that the financial leverage is negative and significantly affecting the profitability and liquidity, whereas it is not significantly affecting the size and growth of the firms. However, the results also show that leverage is positive and significantly affecting the tangibility of assets but insignificant with the firm's age.

Frank, M. Z., & Goyal, V. K. (2009) have evaluated important and reliable factors influencing capital structure decisions for listed US firms from 1950 to 2000. The dependent variables selected is TDM = Total debt/Market Value of Assets. The authors concluded that higher profitable firms have low level of leverage. Therefore, the study shows insignificant relationship of profitability and TDM. The study also shows that larger the size of firm is having higher amount of leverage. Therefore, the authors concluded that Size is significantly relating with TDM High proportion of fixed assets, higher the leverage. Hence there is a significant impact of tangibility of assets over TDM.

Harris, M., & Raviv, A. (1991) surveyed the literature on the concept of capital structure and summarized the implication of dependent variables (Leverage) and independent variable. The authors have summarized from the reviewed literature that profitability, earning volatility and uniqueness leads to decrease in leverage. Therefore, they are significantly negative to Leverage. NDTS, fixed assets, growth, tangibility of assets and size leads to increase in leverage. Therefore, they are showing significant positive relationship with Leverage

Mishra, C. S. (2011) studied 48 Indian Profit making public sector unit with step wise regression analysis with two dependent variables. 1. Total debt/Total assets 2. Total Debt/ capital employed. According to the findings of the research, there is a substantial association between profitability and both of the dependent variables, which are total debt divided by total assets and total debt divided by capital employed (a combination of total debt and net worth). Whereas, NTDS, size and earning volatility are not significantly related with both the dependent variables Growth and Tangibility shows the significant relationship with Total debt/Total assets. However, it is having insignificant relationship with Total Debt/ capital employed (Total debt + Net worth). There is no significant relationship of Tax and -Total debt/Total assets but there is a significant connection with Tax and Total Debt/ capital employed (Total debt + Net worth).

Ngoc, N. M. et al. (2021). During the period of 2011 to 2018, an examination was carried out to study the influence of capital structure on the business performance of 25 companies operating in the real estate industry that were listed on the HOSE. The findings of the research indicate that the capital structure of a company has a detrimental effect on the performance of the business. The study also discovered that tangible assets (TANG) have a beneficial impact on the success of real estate companies. This was another discovering made by the research. This demonstrates that the effectiveness of a real estate company's business performance is directly proportional to the amount of tangible fixed assets that the company possesses. In spite of the fact that the study included control factors such as firm size (SIZE), liquidity (LIQ), asset growth (GROWTH), economic growth (GDP), and inflation rate (INF), the researchers were unable to gather sufficient evidence to draw any conclusions regarding the connection between these control variables and business performance.

Sa'adah, U., & Indana, R. (2023) conducted research on the impact that capital structure and profitability have on the value of companies that are listed on the Aria Securities List. As a proxy for profitability, return on equity is used to determine the capital structure variable, which is calculated as the ratio of debt to equity. According to the findings, both the capital structure and the return on equity (ROE) are contributing factors that have a substantial and negative impact on the value of the company.

Titman, S., & Wessels, R. (1988) analyzed the determinants of superior financial structure for 469 sample companies for the period of 1974 to 1982 with the help of factor analytic technique. The selection of dependent variables is: 1.

Short term debt 2. Long term debt 3.Convertible debt. The empirical results show that profitability and size are affecting the leverage significantly. NDTS, earning volatility, tangibility of assets and growth are not affecting the leverage significantly.

Yadav, C. S. (2014) analyzed a study on capital structure of 50 Indian companies Listed on NSE for the period of 2002-2012 through the support of correlation and multiple regression analysis. Dependent variable is taken as debt to equity ratio. According to the study profitability, NDTS, growth, liquidity, tangibility and uniqueness do not affect significantly to the capital structure decision of companies.

3 Research Design

3.3 **Objectives of the Study**

- 1. To determine the factors moving capital structure decision in the Indian Realty Sector
- 2. To examine the effect of financial leverage on company's value in Indian Real Estate Sector

3.4 **Hypothesis of the study**

- 1. H0₁: There is no significant impact of Financial Leverage on Firm Value
- 2. H0₂ : There is no significant impact of Interest Coverage Ratio on Firm Value
- 3. H0₃ : There is no significant impact of Total Assets on Firm Value
- 4. H0₄ : There is no significant impact of ROE on Firm Value

3.5 **Research Framework**



3.6 Variables under Study

Independent Variables	Control Variable	Dependent Variables
Financial Leverage (X1) Debt/Equity Interest Coverage Ratio (X2) EBIT/Int Exp Total Assets (X3) Proxy for Size	Company Performance (ROE) (Z) Proxy for Profitability. EAT/Equity	Firm Value (Enterprise Value (EV)) (Y) EV = Market Cap+ Total Debt - cash and Cash equivalent

3.7 Methodology

The data has been collected through the secondary source. Nifty Realty Index has been selected as a sample for investigation which is based on free-float market capitalization. Total 10 companies are selected for a period of 7 years (2015-2022) for research purpose. Additional CMIE databases have been investigated in order to collect the financial information of a number of different businesses. Step-wise Regression Analysis method has been used to analyze the results of the study using SPSS software as step-wise regression provides valuable insights into evaluation of variables under study and it also helps to develop theories or models for further research.

3.8 Model Building

The empirical step-wise Regression Model has been built using the SPSS software package. EV = $\alpha + \beta_1$ (FL) + β_2 (ICR) + β_3 (TA) + β_4 (ROE) +e

4 Research Result and Analysis

The research result has been derived using SPSS Package 29

 Table -1. Descriptive Statistics

Regres	sion		
Descriptive Statistics a.			
	Mean	Std. Deviation	Ν
Firm Value (Enterprise Value) EV = Market Capitalization +Total Debt - Cash and Cash equivalent	156596.3913	192731.7102	55
Financial Leverage = Debt/ Equity	7.867063184	7.802485043	55
Interest Coverage Ratio= EBIT/Interest Exp	8.215540952	29.83643339	55
Total Aseets = Proxy for Size (Log of assets)	4.944358371	0.420512548	55
a. Selecting only cases for which Company Performance = ROE =EAT/Equity (Proxy of Profitability)	>= 1.00000000		

1. Firm Value (Enterprise Value) (EV):

Mean: \$156,596.39 Standard Deviation: \$192,731.71 Number of observations (N): 55 This indicates the average firm value and its variability among the sample of 55 companies.

2. Financial Leverage:

Mean: 7.867

Standard Deviation: 7.802

This shows the average financial leverage (debt/equity ratio) of the sample companies, with a standard deviation indicating the variability in leverage among them.

3. Interest Coverage Ratio:

Mean: 8.216

Standard Deviation: 29.836

This represents the average interest coverage ratio (EBIT/Interest Expense) for the sample companies, with a standard deviation indicating the variability in their ability to cover interest expenses.

4. Total Assets (Proxy for Size):

Mean: 4.944

Standard Deviation: 0.421

This indicates the average size of the companies in terms of total assets (log of assets), with the standard deviation showing the variability in company size among the sample.

The additional information provided requests the interpretation only for cases where the Company Performance, represented by Return on Equity (ROE), is greater than or equal to 1. This suggests filtering the data based on a specific criterion for profitability before interpreting the descriptive statistics further.

Table -2. Correlation Matrix

The correlation matrix provided reveals the relationships between different variables:

1. Firm Value (Enterprise Value):

- It has a weak positive correlation with Financial Leverage (0.099) and Total Assets (0.559), showing a slight tendency for larger companies and more debt to be linked to higher firm value. - There is a weak negative correlation

	Correlatio	ns a.			
		Firm Valu	Financial Lever	Interest C	Total Aseets = Proxy for Size (Log of assets)
Pearson Correlation	Firm Value (Enterprise Value) EV = Market Capitalization +T	1	0.099126146	-0.02719	0.558730888
	Financial Leverage = Debt/ Equity	0.099126	1	-0.19588	-0.073758068
	Interest Coverage Ratio=EBIT/Interest Exp	-0.02719	-0.195875658	1	-0.11875788
	Total Aseets = Proxy for Size (Log of assets)		-0.073758068	-0.11876	1
Sig. (1-tailed)	Firm Value (Enterprise Value) EV = Market Capitalization +T	otal Debt -	0.235753229	0.421884	4.64E-06
	Financial Leverage = Debt/ Equity	0.235753		0.075899	0.296266061
	Interest Coverage Ratio=EBIT/Interest Exp	0.421884	0.075898577		0.193913621
	Total Aseets = Proxy for Size (Log of assets)	4.64E-06	0.296266061	0.193914	
N	Firm Value (Enterprise Value) EV = Market Capitalization +T	55	55	55	55
	Financial Leverage = Debt/ Equity	55	55	55	55
	Interest Coverage Ratio= EBIT/Interest Exp		55	55	55
	Total Aseets = Proxy for Size (Log of assets)	55	55	55	55
a. Selecting only cases for	or which Company Performance = ROE =EAT/Equity (Proxy of Pr	ofitability)	>= 1.00000000		

with Interest Coverage Ratio (-0.027), suggesting a slight tendency for higher firm value to be associated with lower interest coverage.

2. Financial Leverage:

- It shows a shaky positive correlation with Firm Value (0.099), indicating a minor propensity for higher leverage to be associated with higher firm value.

- There is a adverse correlation with Interest Coverage Ratio (-0.196), indicating that higher leverage is associated with lower interest coverage.

3. Interest Coverage Ratio:

- It has a weak negative correlation with both Financial Leverage (-0.196) and Total Assets (-0.119), suggesting that lower interest coverage tends to be associated with higher leverage and smaller company size.

- There is a weak positive correlation with Firm Value (0.027), signifying that higher interest coverage is somewhat associated with higher firm value.

4. Total Assets (Proxy for Size):

- It shows a moderate positive correlation with Firm Value (0.559), indicating that larger companies incline to have higher firm values.

- There is a fragile adverse correlation with Financial Leverage (-0.074), suggesting that larger companies tend to have slightly lower financial leverage.

The significance values (Sig.) Show how likely it is that the correlation coefficients would be seen if there were no real correlation in the group. A significance level less than 0.05 is typically considered statistically significant.

It's important to note that these interpretations are based on the correlations observed within the provided data and should be interpreted cautiously.

Table 3. Variable entered/removed

Variables Entered/Removed a.,b.									
Model	Variables Entered	Variables	Method						
1	Total Aseets = Proxy for Size (Log of assets)	Stepwise (Criteria: P	robability-of	-F-to-enter <= .050, Probability-of-F-to-remove >= .100).					
a. Dependent Variable: Fir	m Value (Enterprise Value) EV = Market Capitalization +Total								
b. Models are based only c	n cases for which Company Performance = ROE =EAT/Equity	(Proxy of F	Profitability) >= 1.000	00000					

Authors assume that selected variables haves negligible impact and therefore it has not been included in the research work

Table 4. Model Summary

	Model Summary											
Model	R	R Square	Adjusted R Square	Std. Error of	Change Statistics							
	Company Performance = ROE =EAT/Equity (Proxy of Profitability) >= 1.000000000 (Selected)				R Square Change	F Change	df1	df2	Sig. F Chan	ige		
1	.559a	0.312	0.299	161342.7501	0.312	24.055	1	53	0			
a. Predictors: (Constant), 1	Predictors: (Constant), Total Aseets = Proxy for Size (Log of assets)											

1. R and R Square:

- R (correlation coefficient): 0.559

- R Square (coefficient of determination): 0.312

- This means that approximately 31.2% of the variance in Company Performance (ROE) can be elucidated by the predictor variable(s) in the model

- These values indicate a moderate positive linear relationship between the predictor variable(s) and Company Performance.

2. Adjusted R Square:

- Adjusted R Square: 0.299

- Adjusted R Square gives a more accurate measure of the amount of variance that can be explained by the model by taking into account the number of predictors.

- It suggests that approximately 29.9% of the variance in Company Performance can be attributed to the predictor variable(s) after adjusting for the number of predictors.

3. Std. Error of the Estimate:

- Std. Error of the Estimate: 161,342.75

- This is the standard deviation of the regression model's residuals, which are the differences between what was observed and what was expected.

- When the value is lower, it shows that the model was able to better fit the data.

4. Change Statistics:

- R Square Change: 0.312

- This is the change in R Square when the predictor variable(s) are added to the model.

- F Change: 24.055

- If the improvement in model fit is statistically significant, this is the F statistic that goes along with the change in R Square.

- df1: 1

- A measure of the numerator's degree of freedom, which is the number of predictors included in the model.

- df2: 53

- Degrees of freedom for the denominator (the error degrees of freedom).

- Sig. F Change: 0.000

- This is the p-value linked with the F statistic, indicating whether the improvement in model fit is statistically significant.

Overall, the model suggests that Total Assets (Proxy for Size, represented by the log of assets) significantly predicts Company Performance (ROE) when it is equal to or greater than 1. A model that takes into account approximately 31.2% of the inconsistency in Company Performance and the improvement in model fit with the addition of Total Assets as a predictor is statistically significant.

 Table 5. ANOVA

		ANOVA	a,b			
Model		Sum of Sq	df	Mean Square	F	Sig.
1	Regression	6.26E+11	1	6.26189E+11	24.055	<.001c
	Residual	1.38E+12	53	26031483005		
	Total	2.01E+12	54			
a. Dependent Variable: Fir	m Value (Enterprise Value) EV = Market Capitalization +Total	Debt - Cas	sh and Cash equivale	nt		
b. Selecting only cases for	which Company Performance = ROE =EAT/Equity (Proxy of Pr					
c. Predictors: (Constant), To	otal Aseets = Proxy for Size (Log of assets)					

The ANOVA table provides information about the variance in the dependent variable (Firm Value) that is explained by the regression model.

1. Regression:

- Sum of Squares: 626,189,054,322.109
- Degrees of Freedom (df): 1
- Mean Square: 626,189,054,322.109
- F Value: 24.055
- Significance (Sig.): 0.000

These values indicate:

- The sum of squares attributed to the regression model, which represents the variability in Firm Value explained by the predictors (Total Assets).

- The degrees of freedom associated with the regression model.

- The mean square, which is the sum of squares divided by its degrees of freedom, representing the average variance explained by the model.

- The F value, which is a ratio of variance explained by the model to the unexplained variance, indicating whether the regression model is statistically significant.

- The significance level, often known as the p-value, is a significant value that is related with the F statistic. In this particular instance, the p-value is extremely low (0.000), which indicates that the regression model is statistically significant at the conventional significance thresholds (for example, alpha = 0.05).

2. Residual:

- Sum of Squares: 1,379,668,599,289.659
- Degrees of Freedom (df): 53
- Mean Square: 26,031,483,005.465

These values represent:

- There are disparities between the values that were observed and those that were predicted for the dependent variable, and the sum of squares that are given to the residuals represent the differences.

- The degrees of freedom associated with the residuals.
- The mean square for the residuals, representing the average unexplained variance.

3. Total:

- Sum of Squares: 2,005,857,653,611.769
- Degrees of Freedom (df): 54

This represents the total sum of squares, which is the sum of squares attributed to the regression model and the residuals.

Overall, the ANOVA table confirms that the regression model significantly explains the variance in Firm Value (EV), given the significance level (Sig.) of the F statistic being less than 0.05.

Table 6. Coefficients

	Coefficients a,b												
Model		Unstandardized Coefficients		Standardized	t	Sig.	95.0% Con	fidence In	Collinearit	y Statistics			
		В	Std. Error	Beta			Lower Bou	Upper Bou	Tolerance	VIF			
1	1 (Constant) -1109559 259071.861				-4.283	0	-1629191	-589926					
	Total Aseets = Proxy for Size (Log of assets)	256080.7	52212.395	0.559	4.905	0	151355.9	360805.5	1	1			
a. Dependent Variable: Fir	m Value (Enterprise Value) EV = Market Capitalization +Total	sh and Cash equivale	nt										
b. Selecting only cases for	which Company Performance = ROE =EAT/Equity (Proxy of Pr	rofitability) >= 1.000000000										

The coefficients table provides information about the relationship between the predictor variable (Total Assets, Proxy for Size) and the dependent variable (Firm Value). Here's the interpretation:

Constant:

Coefficient (B): -1,109,558.502 Standard Error: 259,071.861 t-value: -4.283 Significance (Sig.): 0.000 Interpretation:

The constant term represents the estimated Firm Value when all predictor variables are set to zero.

The negative coefficient suggests that when Total Assets is zero, the estimated Firm Value is approximately - 1,109,558.502.

The t-value indicates the significance of the constant term, with a p-value of 0.000, indicating statistical significance. Total Assets (Proxy for Size)

Coefficient (B): 256,080.729 Standard Error: 52,212.395 Standardized Coefficient (Beta): 0.559 t-value: 4.905 Significance (Sig.): 0.000 Interpretation:

For every unit increase in Total Assets (log of assets), the estimated Firm Value increases by approximately \$256,080.729.

The standardized coefficient (Beta) of 0.559 indicates that Total Assets explains approximately 55.9% of the variance in Firm Value.

The t-value is 4.905, and the p-value (Sig.) is 0.000, indicating that the coefficient for Total Assets is statistically significant.

Confidence Interval:

The 95.0% confidence interval for the coefficient of Total Assets ranges from \$151,355.926 to \$360,805.531. This interval provides a range within which we are 95% confident that the true coefficient lies.

Collinearity Statistics:

Tolerance: 1.000 VIF (Variance Inflation Factor): 1.000

Interpretation:

Tolerance values close to 1 indicate low multicollinearity, suggesting that Total Assets is not redundant with other predictors in the model.

VIF values close to 1 also indicate low multicollinearity, confirming that there are no issues with multicollinearity in the model.

Overall, the coefficient for Total Assets is statistically significant and positively associated with Firm Value, indicating that larger companies, as indicated by their total assets, tend to have higher firm values.

Table 7. Excluded Variables

Excluded Variables a											
Model		Beta In	t	Sig.	Partial Correlation	Collineari	ty Statistic	s			
						Tolerance	VIF	Minimum	Tolerance		
1	Financial Leverage = Debt/ Equity	.141b	1.242	0.22	0.17	0.995	1.005	0.995			
	Interest Coverage Ratio= EBIT/Interest Exp	.040b	0.343	0.733	0.048	0.986	1.014	0.986			
a. Dependent Variable: Fire	m Value (Enterprise Value) EV = Market Capitalization +Tota										
. Predictors in the Model: (Constant), Total Aseets = Proxy for Size (Log of assets)											

The "Excluded Variables" section provides information about the variables that were not included in the regression model. Here's the interpretation:

1. Financial Leverage (Debt/Equity):

- Beta (β): 0.141

- t-value: 1.242

- Significance (Sig.): 0.220

Interpretation:

- The beta coefficient represents the change in the dependent variable (Firm Value) for a one-unit change in the predictor variable (Financial Leverage), holding all other variables constant.

- In this case, the coefficient of 0.141 suggests that for every one-unit increase in Financial Leverage, the Firm Value increases by 0.141 units.

- The t-value of 1.242 and the significance level of 0.220 indicate that Financial Leverage is not statistically significant in predicting Firm Value in this model.

2. Interest Coverage Ratio (EBIT/Interest Expense):

- Beta (β): 0.040

- t-value: 0.343

- Significance (Sig.): 0.733

Interpretation:

- The beta coefficient represents the change in the dependent variable (Firm Value) for a one-unit change in the predictor variable (Interest Coverage Ratio), holding all other variables constant.

- In this case, the coefficient of 0.040 suggests that for every one-unit increase in Interest Coverage Ratio, the Firm Value increases by 0.040 units.

- The t-value of 0.343 and the significance level of 0.733 indicate that Interest Coverage Ratio is not statistically significant in predicting Firm Value in this model.

3. Partial Correlation:

- Financial Leverage: 0.170

- Interest Coverage Ratio: 0.048

Interpretation:

- Partial correlation represents the correlation between the predictor variable and the dependent variable when controlling for other variables in the model.

- In this case, both Financial Leverage and Interest Coverage Ratio have low partial correlations with Firm Value, suggesting weak relationships when accounting for other variables in the model.

4.

- Tolerance: 0.995 (Financial Leverage), 0.986 (Interest Coverage Ratio)

-VIF (Variance Inflation Factor): 1.005 (Financial Leverage), 1.014 (Interest Coverage Ratio)

- Minimum Tolerance: 0.986

Interpretation:

- Tolerance values close to 1 and VIF values close to 1 indicate low multicollinearity between the predictor variables and other variables in the model.

- The minimum tolerance of 0.986 suggests that there are no issues with multicollinearity in the model.

Overall, based on the beta coefficients, t-values, and significance levels, Financial Leverage and Interest Coverage Ratio do not significantly predict Firm Value in this regression model. Additionally, the low partial correlations and absence of multicollinearity indicate that the exclusion of these variables does not impact the overall model performance.

Table 8. Coefficient correlation

	Coefficient Correlations a,b											
Model Total Aseets = P				Total Aseets = Proxy	for Size (Log	of assets)						
	1	Correlations	Total Asee	1								
		Covariances	Total Asee	2726134204								
a.	Selecting only cases for v	vhich Company Performance = ROE =EAT/Equity (Proxy of Pr										
b.	. Dependent Variable: Firr	n Value (Enterprise Value) EV = Market Capitalization +Total	Debt - Cas	h and Cash equivale	nt							

The "Coefficient Correlations" section provides information about the correlations and covariances between the predictor variable (Total Assets, Proxy for Size) and the dependent variable (Firm Value). Here's the interpretation:

1. Correlation:

- Total Assets = Proxy for Size (Log of assets): 1.000

Interpretation:

- The correlation coefficient of 1.000 indicates a perfect positive correlation between Total Assets and Firm Value.

- This suggests that as Total Assets (represented by the log of assets) increase, Firm Value (Enterprise Value) also increases, and vice versa.

- A correlation coefficient of 1.000 suggests that the two variables move perfectly in tandem, in the same direction, with no variability unaccounted for.

2. Covariance:

- Total Assets = Proxy for Size (Log of assets): 2,726,134,203.813

Interpretation:

- The degree to which two variables vary in tandem is quantified by their covariance.. In this case, it specifically measures the degree to which Total Assets and Firm Value vary together.

- The positive covariance value indicates that when Total Assets increase, Firm Value tends to increase as well, and vice versa.

- However, the covariance value alone does not provide information about the strength of the relationship between the variables, which is better represented by the correlation coefficient.

Overall, the perfect positive correlation (correlation coefficient of 1.000) between Total Assets and Firm Value indicates a strong and direct relationship between these variables. This suggests that Total Assets, as a proxy for company size, is a significant predictor of Firm Value (Enterprise Value).

Table 9: Collinearity Diagnostics

	Collinearit	a,b				
Model		Eigenvalu	Condition Index	Variance Pro		
		(Constant)	Total Aseets = Proxy for Size (Log of assets)			
1	. 1	1.996	1	())
	2	0.004	23.775	1		L
a. Dependent Variable: Fi	m Value (Enterprise Value) EV = Market Capitalization +Total					
b. Selecting only cases for	which Company Performance = ROE =EAT/Equity (Proxy of Pr	ofitability	>= 1.00000000			

The "Collinearity Diagnostics" section provides information about collinearity, which refers to the degree of correlation among predictor variables in a regression model. Here's the interpretation of the provided diagnostics

1. **Dimension**:

- Dimension 1: Represents the primary dimension of variability in the predictor variables.

- Dimension 2: Represents the secondary dimension of variability in the predictor variables.

2. Eigenvalue :

- Eigenvalues represent the amount of variability in the predictor variables explained by each dimension.

- For Dimension 1, the eigenvalue is 1.996, indicating that it explains a significant amount of variability in the predictor variables.

- For Dimension 2, the eigenvalue is much smaller (0.004), indicating that it explains less variability compared to Dimension 1.

3. Condition Index:

- The condition index measures the severity of multicollinearity in the regression model.

- For Dimension 1, the condition index is 1.000, suggesting that there is no multicollinearity issue in this dimension.

- For Dimension 2, the condition index is 23.775, indicating a higher degree of multicollinearity.

4. Variance Proportions:

- Variance proportions indicate the proportion of variance in the predictor variables explained by each dimension.

- For Dimension 1, the variance proportion is 1.00 for both predictor variables, suggesting that they contribute equally to the variability explained by Dimension 1.

- For Dimension 2, the variance proportion is also 1.00 for both predictor variables.

Overall, these diagnostics suggest that there is no multicollinearity issue in the primary dimension (Dimension 1) as indicated by a condition index of 1.000. However, in the secondary dimension (Dimension 2), there appears to be multicollinearity, as indicated by a higher condition index. It's essential to consider these diagnostics when interpreting the results of the regression model and assessing the reliability of the coefficient estimates. If multicollinearity is present, it can affect the interpretation and stability of the regression coefficients.

5. Conclusions and Recommendations

Conclusions

The empirical study uses a sample of 50 observations, collected from 10 firms listed on the Nifty Realty Index from 2015 to 2022.Step-wise regression method has been used. Enterprise value (EV), which measures the firm value is selected as dependent variable. Financial Leverage (FL), Interest Coverage Ratio (ICR), Size (TA) have been selected as an independent variables, whereas Company Performance (ROE) is taken as a proxy for profitability as a control variable.

EV has a weak positive correlation with FL (0.099) and TA (0.559) and weak negative correlation with ICR (-0.027). FL has a weak positive correlation with EV (0.099) and a negative correlation with ICR (-0.196). ICR has a weak negative correlation with both FL (-0.196) and TA (-0.119) and a weak positive correlation with EV (0.027). TA shows a moderate positive correlation with Firm Value (0.559) and a weak negative correlation with Financial Leverage (-0.074)

The result shows that TA significantly impacts the firm value. This suggests that overall asset value is a good proxy for a company's worth, and that the inverse is also true. Whereas FL and ICR has no or negligible impact on the firm value of selected companies. It means that majority of the companies are not impacted by taking debts the value doesn't change with the debt-equity ratio and the interest coverage ratio.

If we talk about control variable (ROE), the model suggests that Total Assets (Proxy for Size, represented by the log of assets) significantly predicts Company Performance (ROE) when it is equal to or greater than 1. The model accounts for approximately 31.2% of the variability in Company Performance and the improvement in model fit with the addition of Total Assets as a predictor is statistically significant.

Recommendations of choosing reasonable capital structure

While short-term debt may possibly have a detrimental consequence on a company's value, long-term debt has no effect, according to the research. For this reason, it is advised that companies keep their debt ratios low. Businesses run a higher risk when their debt-to-equity ratio is high. When companies either can't pay their bills or are having a hard time doing so, they may be in financial hardship. Not only may this put them in a bind, but it could also spell disaster for the company. Public corporations, on the other hand, can raise a lot of money to broaden their commercial operations through stock offerings. There is a lot of pressure on companies to keep growing, yet issuing stocks can be expensive. Other dangers that businesses confront include loss of control, which happens when investors' expectations are not met and the company's value drops.

Given the positive correlation between the debt ratio and the company's financial woes, agency cost theory posits that debt functions similarly to a system that both monitors and stimulates the board of directors' performance. On the other hand thinking about debt raises agency expenses, which in turn causes shareholder and creditor conflict. Creditors typically ask for a higher interest rate on loans when debt levels are high, as it makes them more vulnerable. There are fixed expenses that companies must pay for each capital raising tool that is provided. Paying interest is an

obligation for debt instruments, whereas satisfying investors' expectations for dividends or future growth is an obligation for equity instruments. Consequently, creditors, stockholders, and the board of directors should all have their interests balanced in the capital structure policy.

Businesses should stick to what they do well in order to reap the benefits of their natural capabilities and increase profits and firm value. Before pursuing alternative investment opportunities, businesses must ensure that sufficient funds are available to sustain their core operations. Managers can maximize the enterprise's total profitability by making well-informed decisions based on regular reviews and evaluations of the business's present investments.

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