



CAPITAL STRUCTURE ON PROFITABILITY -A CASE STUDY OF SBI LIFE INSURANCE -AN EMPIRICAL EVIDENCE

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ABSTRACT

A company's "capital structure" is the sum of all the many forms of outside financing it employs in its first stages, as used in corporate finance. The balance sheet of a firm details its financial position, which includes equity, debt, and preferred stock. Ownership of a company's shares and the right to a portion of its future earnings and cash flows constitute equity capital. Equity may be expressed as ordinary stock, preferred stock, or retained profits, whilst debt can be issued as loans or bonds. An additional component of the capital structure is short-term debt. An examination of eight trading organisations' data sets was conducted on the Bombay Stock Exchange (BSE). To analyse and test hypotheses, the acquired data was imported into EViews and the multiple regression analysis approach was used. Capital structure affects a company's financial success, according to the study's results. According to the results, long-term debt and equity both significantly affect financial performance in a favourable way, whereas short-term debt has the opposite effect. This paper explains about Capital structure of SBI Life Insurance on Profitability using Ratios and descriptive statistics.

KEYWORDS: Capital Structure, Profitability, Financial performance, SBI Life Insurance.

JEL CODES: O16, O17, O18, O19.

1. INTRODUCTION

Capital is the most important thing when beginning a company. It is the bedrock upon which the business is built. The two main ways that a company might raise money are via debt and equity. When a business raises funds for day-to-day operations and future expansion, it employs a capital design that incorporates both stock and obligation. In corporate money, the expression "capital design" alludes to the blend of a few kinds of external financing that a company uses to get off the ground. The balance sheet details the components of this, which include preferred stock, debt (loan money), and shareholders' equity. A higher level of financial leverage (or gearing, in British English) is seen when the proportion of debt to total capital is higher. Eventually, investors get worried and the cost of capital rises due to the increased risk and less financial flexibility caused by a company's excessive debt. It is the responsibility of the company's management to design a capital construction that limits the expense of capital while making the most of financial leverage.

U.S. regulated utilities take capital structure into account when determining consumer prices. Regulators establish a suitable capital structure and cost of capital for ratemaking purposes, but the utility company has the ability to adopt whatever capital structure it thinks fit. Investors and financial experts keep a close eye on a number of gearing ratios and leverage ratios to determine the level of debt in an organization's capital construction.

An adjustment of an organization's capital construction significantly affects its fairly estimated worth, as indicated by the Miller and Modigliani theorem. Most people think this school of thinking is only theoretical since it presupposes a flawless market and doesn't account for real-world variables like price changes and unforeseen circumstances when it comes to funding a business. Much discussion and work has gone into explaining the relevance of a company's capital structure to its real-world value, with a focus on challenging and loosening the assumptions put out by Miller and Modigliani.



The following are a few key definitions

An organization's capital design includes the synthesis or make-up of its capitalization, which incorporates all drawn out monetary assets like credits, saves, offers, and securities, as expressed by Gere Stenberg. "Adjusting the variety of assets sources in a legitimate way, for example in relative size or in extents" is the way capital construction was portrayed by Keown et al.

In his work, P. That's what chandra states "capital design is basically worried about how the firm chooses to partition its incomes into two expansive parts." One part of the cash flow is set aside to pay down borrowed capital, while the other part goes to equity owners.

How Capital Structure Is Crucial: Maximising Value: In a very much planned capital construction, the total worth of the cases and proprietorship interests of the investors is expanded, which in turn maximises the market value of the business.

Keeping Costs Low: The goal of optimising an organization's capital construction is to lessen finance costs. An organisation may minimise its total cost of capital by identifying and allocating funds from a variety of reliable sources.

Gain in Stock Value: By increasing ordinary shareholders' profits per share, capital structure maximises the market price of shares in a corporation. Additionally, it enhances the amount of dividends received by shareholders.

Opportunity for Investment: An improved capital structure enhances a company's capacity to discover fresh investment possibilities that might generate profit. Debt providers are more likely to be confident when capital gearing is appropriate.

2. REVIEW OF LITERATURE

N. Narsaiah (2020): In "Does Capital Construction Effect on Monetary Execution: Proof from India," the authors looked at how different capital structures affected the financial performances of organizations recorded on the BSE. The review covers the years 2014–2019 and focuses on 100 Indian manufacturing enterprises. Regression methods were used by him to accomplish the goals. Last but not least, the study's author concluded that overall debt and long-term debt hindered financial success.

Purnima Rao, Satish Kumar and Vinodh Madhavan (2019): This study looked at the variables that influence the capital structure choices made by SMEs in India. Out of all the businesses, 174 are not related to finance. Their usage of the Generalised technique of moments allowed them to successfully complete the task. They came to the conclusion that the dominance hierarchy hypothesis might be valuable for SMEs in India.

Shailaja (2019): We looked at the article "Optimisation of Capital Structure for Increased Profitability" to find out what elements are affecting capital structure. Over the course of six years, from 2012 to 2018, the researcher gathered data. The information is gathered from one hundred IT companies in India. Coefficient of variation, mean, standard deviation, and ratios were some of the statistical methods she utilised to examine the data. Regardless of their debt-to-capital ratio, the study's authors discovered that low-capital, low-operating-expense IT firms turned a tidy profit.

Shalini. R and Mahua Biswas (2019): "Capital Design Determinants of S&P BSE 500: A board Information Exploration" is the title of the essay. Over the course of nineteen years, from 2000 to 2018, the researcher analysed data from 416 businesses listed on the S&P BSE. These companies represented fourteen different industries. She was able to accomplish her study goal by analysing the effect of specific variables on capital design utilizing a numerous relapse model. Size, charge paid, deterioration to add up to resources proportion, and productivity proportion are four capital design explanatory factors that the researchers find statistically significant.

S. Hema Prasanna (2018): To decide the capital design of the chosen businesses in the Indian pharmaceutical industry, the article titled "Determinants of Capital of Indian Pharmaceutical Industry" looked into the topic. The study's sample size is 10 pharmaceutical firms from India. The goals were accomplished by the use of regression, step-wise regression, and correlation. At the end of the day, the researcher identified sixteen factors that influence the capital development of the Indian pharmaceutical industry. The two most important of these are liquidity and solvency ratio.



Chandrika Prasad Das, Rabindra Kumar Swain (2018): Titled "Impact of Capital Design on Monetary Execution," the essay delves into the factors that influence capital structure and how it affects financial performance. For the analysis, they relied on secondary data collected from fifty leading firms. The researchers employed a regression model to achieve their aims. factors that influence the capital development of the sample organisations, and the researcher also discovered a strong correlation between the two.

Atif Ghayas and Javaid Akhter(2018): "Effect of Capital Design on Profitability:An Exact Examination of Recorded Firms in India" looked at how a company's choice about its capital structure affected its bottom line.From 2012 to 2016, 35 pharmaceutical organizations from India that were recorded on the Bombay Stock Trade (BSE) were picked by the researchers. Using regression analysis, they were able to achieve their goal. They concluded that SDA and DA had a beneficial influence on ROE, but LDA had a weak to nonexistent effect.

Rosy Dhingra, Dr. Madhuri Gupta, Dr. Kapil Dev (2018): "An empirical study- Capital Structure of Indian IT Sector" looked at the capital structure of IT businesses registered with BSE and how certain financial factors impact it. Over the course of a decade, from April 1, 2008, to March 31, 2017, researchers surveyed 20 different organisations in the information technology industry. Thanks to the pooled OLS (ordinary least squares) Model, they were able to achieve their goal. Last but not least, they discovered that financial factors, particularly tangibility and long-term profitability, profoundly impact capital structure.

Rosy Dhingara and Kapil Dev(2016): "Determinants of Capital Construction - An Investigation of Oil Industry in India" saw what bookkeeping factors meant for the capital design of oil firms listed on NSE and what factors were responsible for such impacts. Ten oil businesses traded on the NSE were chosen by the researchers. Panel regression was used to achieve the goal. In conclusion, they discovered a positive connection among influence and bookkeeping qualities like monetary strength, and a negative connection among influence and other variables.

Dr. Mohd Taqi, Dr. MohdAjmal and Dr. Asif Pervez (2016): "Impact of Capital Structure on Benefit of Chosen Exchanging Organizations of India" looked to translate the association between an organization's monetary execution and its capital design. Eight trading businesses registered on the BSE were chosen by the researchers. The researcher was able to accomplish their goals with the use of multiple regression analysis, a tool for hypothesis testing and analysis. Capital structure affects a company's financial success, they concluded.

3. STATEMENT OF THE PROBLEM

The organization's capital design. Deciding the best capital design is a challenging task for financial managers. To achieve its optimum capital structure and maximise total value, a business must issue a wide variety of securities in an infinite variety of combinations. The success or failure of a company might hinge on the choice of financing strategy. Obtaining the funds necessary for development and survival isn't without its challenges. As a result, the purpose of this research is to assess the effect of capital structure on the bottom lines of a few trade firms in India. Capital structure design that maximises business performance, profitability, and shareholder value is a challenging task for all organisations, independent of size and other considerations. Picking the worst possible capital structure is risky since it might lead to judgements that go against agency cost theory. The challenge of analysing and assessing the impact of the ideal capital design on business execution, benefit, and investor esteem is compounded by the fact that various economies have different ratios.

4. RESEARCH GAP

The correlation between company size, fixed assets, and financial leverage has been the primary emphasis of prior research, which has mostly concentrated on big companies. There is a lack of information about how these elements (debt financing) affect financial performance when using data at the business level. Finding out how the capital structure of Bombay Stock Exchange (BSE) listed Indian Trading sector firms' financial performance is the goal of this study.

4. OBJECTIVES OF THE STUDY

- ❖ To investigate the function of India's capital structure.
- ❖ To analyse SBI Life Insurance's capital structure.
- ❖ To analyse SBI Life Insurance's capital structure and profitability.
- ❖ To analyse how SBI Life Insurance's profitability is affected by their debt-to-equity ratio.



5. HYPOTHESES OF THE STUDY

- H0:** There is no relationship between Capital Structure and Profitability of SBI Life Insurance.
- H1:** There is a relationship between Capital Structure and Profitability of SBI Life Insurance.
- H0:** There is no Significant Impact of Dept-Equity ratio on Profitability of SBI Life Insurance.
- H1:** There is a Significant Impact of Dept-Equity ratio on Profitability SBI Life Insurance.

6. RESEARCH METHODOLOGY

- ❖ **Sources of Data:** The 10 public sector banks' annual reports provided the secondary data. We also used information from www.moneycontrol.com to back up our findings. Prior to being used for the research, the data underwent certain basic mathematical processes, such as calculating the ratios.
- ❖ **Research tools**
 - Correlation
 - Regression
 - Descriptive Statistics
 - Stationary test
 - Regression Analysis
 - OLS (Ordinary Least Square) Method

7. SCOPE OF THE STUDY

The capital construction and monetary execution of eight exchanging organizations enlisted on the Bombay Stock Exchange in India are the primary focus of this research. A total of six trading companies were used for the analysis. The duration of the research is five years, beginning in 2016–17 and ending in 2020–21.

8. NEED FOR THE STUDY

The organization's supporting construction isn't not difficult to derive. Determining the ideal capital structure is a challenging task for financial managers. To achieve its optimum capital structure and maximise total value, a business should give a wide assortment of protections in an endless assortment of mixes. Subsequently, the reason for this examination is to survey the impact of capital construction on the main concerns of a couple of exchange firms India.

9. LIMITATIONS OF THE STUDY

- ❖ The research has a flaw in that it only includes firms from the Indian trade industry that are listed on the Bombay Stock Exchange, and not from other industries.
- ❖ The study's secondary data, which includes factors that were chosen for collection,

10. RESULT AND DISCUSSION

The purpose of this study is to analyse SBI Life Insurance's capital structure and profitability.

Table Shown Correlations of SBI Life Insurance from 2016-17 to 2020-2021.

Year	Capital(x)	Dx	Dx ²	Net profit(y)	Dy	Dy ²	Dx*dy
2020-21	2300	288	82944	101	38	1444	10944
2019-20	2214	202	40804	92	29	841	5858
2018-19	2180	168	28224	143	80	6400	13440
2017-18	2120	108	11664	141	78	6084	8424
2016-17	2012	0	0	63	0	0	0
	10826	766	163636	540	225	14769	38666

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$



Correlation (r) = 0.977313707

Table Shown Regression of SBI Life Insurance from 2016-17 to 2020-2021.

Year	Capital(x)	Net profit(y)	X2	Y2	Xy
2020-21	1280	1456	1638400	2119936	1863680
2019-20	1210	1422	1464100	2022084	1720620
2018-19	1170	1327	1368900	1760929	1552590
2017-18	1120	1150	1254400	1322500	1288000
2016-17	1000	955	1000000	912025	955000
	5780	6310	6725800	8137474	7379890

$$A = \frac{(\Sigma y)(\Sigma x^2) - (\Sigma x)(\Sigma xy)}{n(\Sigma x^2) - (\Sigma x)^2}$$

$$B = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{n(\Sigma x^2) - (\Sigma x)^2}$$

Regression Values a=-978.9945603, b=1.938576609

RESULT & DISCUSSION

Above Tables shows that Capital Structure Ratios and Profitability Ratios are explain about values and also shown Impact on Capital Structure on Profitability position of SBI Life Insurance is good. The Correlation and Regression shows that positive correlations between Capital on Profitability of LIC of India.

Regression Statistics SBI Life Insurance from 2016-17 to 2020-2021

<i>Regression Statistics</i>							
Multiple R	Multiple R						
R Square	R Square						
Adjusted R Square	Adjusted R Square						
Standard Error	Standard Error						
Observations	Observations						
ANOVA							
Regression	Regression	Regression	Regression	Regression	Regression		
Residual	Residual	Residual	Residual	Residual	Residual		
Total	Total	Total	Total	Total	Total		
Intercept	Intercept	Intercept	Intercept	Intercept	Intercept	Intercept	Intercept
1280	1280	1280	1280	1280	1280	1280	1280



Descriptive Statistics of SBI Life Insurance from 2016-17 to 2020-2021

	2020-21	2019-20	2018-19	2017-18	2016-17
Mean	1368	1316	1248.5	1135	977.5
Standard Error	88	106	78.5	15	22.5
Median	1368	1316	1248.5	1135	977.5
Mode	#N/A	#N/A	#N/A	#N/A	#N/A
Standard Deviation	124.4507935	149.9066376	111.0157646	21.21320344	31.81980515
Sample Variance	15488	22472	12324.5	450	1012.5
Kurtosis	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Skewness	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Range	176	212	157	30	45
Minimum	1280	1210	1170	1120	955
Maximum	1456	1422	1327	1150	1000
Sum	2736	2632	2497	2270	1955
Count	2	2	2	2	2

Result & Discussion

Above Tables shows that Capital Structure Ratios and Profitability Ratios are explain about values and also shown Impact on Capital Structure on Profitability position of SBI Life Insurance is good. Descriptive Statistics and Regression Statistics shows that Positive impact on Capital structure on Profitability. When a company takes out loans or uses stock to fund operations, this arrangement is called its capital structure. According to San and Heng (2011), an organization's capital design is the blend of value, obligation, and half and half protections used to support the company's resources. An organization's capital construction is the blend of various securities that it has issued to fund its activities.

Profitability and Capital Structure Ratios SBI Life Insurance from 2016-17 to 2020-2021

Year	Net profit	Net sales	Net profit ratio
2020-21	1456	81913	1.777495636
2019-20	1422	43798	3.246723595
2018-19	1327	44604	2.9750695
2017-18	1150	34068	3.375601738
2016-17	955	30548	3.126227576

Net Profit Ratio = Net Profit/Net Sales*100

Year	Operating profit	Net sales	Operating profit ratio
2020-21	872	81913	1.064544089
2019-20	1351	43798	3.084615736
2018-19	1474	44604	3.304636355
2017-18	1332	34068	3.909827404
2016-17	1068	30548	3.496137227

Operating Profit Ratio = Operating Profit/Net Sales*100



Year	Operating expenses	Net sales	Operating ratio
2020-21	81040	81913	98.9342351
2019-20	42447	43798	96.91538426
2018-19	43130	44604	96.69536364
2017-18	32736	34068	96.0901726
2016-17	29479	30548	96.50058924

$$\text{Operating Ratio} = \text{Operating Expenses/Net Sales} * 100$$

Year	Net profit	Total assets	Return on assets
2020-21	1456	226830	0.641890403
2019-20	1422	165580	0.858799372
2018-19	1327	146734	0.904357545
2017-18	1150	121720	0.944791324
2016-17	955	102240	0.934076682

$$\text{Return on Assets} = \text{Net Profit/Total Assets} * 100$$

Year	Net profit	Shareholders' equity	Return on equity
2020-21	1456	1280	113.75
2019-20	1422	1210	117.5206612
2018-19	1327	1170	113.4188034
2017-18	1150	1120	102.6785714
2016-17	955	1000	95.5

$$\text{Return on Equity} = \text{Net Profit/Shareholders Equity} * 100$$

Year	Total liabilities	Shareholders' equity	Debt to equity ratio
2020-21	216430	1280	16908.59375
2019-20	156837	1210	12961.73554
2018-19	139157	1170	11893.76068
2017-18	115193	1120	10285.08929
2016-17	96687	1000	9668.7

$$\text{Debt to Equity Ratio} = \text{Total Liabilities/Shareholders Equity} * 100$$

Year	Total liabilities	Fixed assets	Debt to fixed assets ratio
2020-21	216430	564	38374.11348
2019-20	156837	568	27612.14789
2018-19	139157	563	24717.05151
2017-18	115193	511	22542.66145
2016-17	96687	507	19070.4142

$$\text{Debt to Fixed Assets Ratio} = \text{Total Liabilities/Fixed Assets} * 100$$



Year	Total liabilities	Current assets	Debt to current assets ratio
2020-21	216430	7509	2882.274604
2019-20	156837	6186	2535.354025
2018-19	139157	6814	2042.221896
2017-18	115193	6703	1718.529017
2016-17	96687	5871	1646.857435

$$\text{Debt to Current Assets Ratio} = \text{Total Liabilities/Current Assets} \times 100$$

Year	Roce
2020-21	17%
2019-20	22%
2018-19	22%
2017-18	24%
2016-17	23%

$$\text{ROCE} = \text{EBIT/Capital Employed}$$

Result & Discussion

During the five years spanning 2016–17 to 2020–21, a total of nine ratios were utilised for the purpose of profitability, capital structure, and other inventory metrics. Six of these ratios pertain to profitability, including net profit, operating profit, operating, return on resources, return on value, and return on capital utilized (ROCE). The other three proportions are obligation to value, obligation to fixed resources, and obligation to current resources.

11. CONCLUSION OF THE STUDY

The research based on LIC of India. The data is collected for 5 years for each company since 2016-17 to 2020-21. I used various statistical tools like correlation, regression, regression statistics, descriptive statistics and ratio analysis for all the companies. I calculated 9 ratios out of which 6 are profitability ratios and remaining 3 are capital structure ratios. Profitability and capital structure are favourably and adversely linked, according to regression and correlation statistics. In descriptive statistics said that whether mean, median, skewness, kurtosis and standard deviation values are positively affected to insurance companies in India. I conducted ANOVA to determine whether the relationship exists between the companies. Finally, profitability ratios shows that in future profitability position of the companies are good.

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