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THE EFFECT OF CAPITAL STRUCTURE ON FIRM PERFORMANCE WITH REFERENCE TO SELECTED COMAPANIES IN BSE

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Abstract - By conducting an in-depth analysis of three selected businesses that are listed on the Bombay Stock Exchange (BSE), this research project examines the interactive relationship between capital structure and business performance. The objective of this ten-year research project, which spans from 2015 to 2024, is to provide insight into the impact of the capital structure decisions made by these businesses on their overall business performance. By employing a methodology of mixed approaches, the research combines qualitative assessments of management decisions, market trends, and macroeconomic factors with quantitative analysis of financial reports and key performance indicators. Financial ratios such as return on assets and debt-to-equity ratio are analyzed to determine the impact of capital structure decisions on the firm. The findings of this research contribute to the existing body of knowledge on the relationship between capital structure and the performance of a company.

Keywords: debt to equity, return on asset, performance, and capital structure

INTRODUCTION

In corporate finance, the mix of sources of funds that is revealed on the balance sheet of a company, such as preferred stock, debt/loans, and stockholders' equity, is called the capital structure. Financial leverage measures the sensitivity of a company's financial condition by comparing the amount of debt to other sources of funds such as equity shares. It is important to achieve a balance because excess use of debt can lead to increased risk, reduced financial flexibility, and increased cost of capital, which is a concern for investors. The creation of a capital structure that maintains ownership while maximizing financial leverage is important. However, there is a point beyond which it ceases to be beneficial to include debt in the capital structure of a company, for example, bonds or loans. This is because companies with debt are able to return a higher percentage of their operating income to stockholders because of the tax deductibility of interest payments. The choice between debt and equity capital is affected by a variety of factors, including the nature of the business, the prospects for growth, and control considerations. To ensure that costs are minimized and value maximized, it is essential to effectively manage the risks associated with debt and ensure that the optimal capital structure is maintained. This involves achieving a balance between debt and equity. The views of third parties on the health of the financial structure are considered in arriving at the optimal capital structure. Each business has a unique debt/equity ratio, and the considerations are affected by a variety of factors, including industry and business-specific characteristics. Recognizing that what may be beneficial to one business may not necessarily be beneficial to another, businesses must consider a variety of factors in arriving at a capital structure that is suited to their specific needs and goals.

REVIEW OF LITERATURE

According to M. Iavorskyi (2013), financial leverage influences business activity in the following ways: signaling, tax shelters, and manager discipline; however, in the case of Ukrainian firms, the relationship between leverage and performance is normally negative.

According to IR Akintoye in 2008, having a capital structure that is evenly spread has a positive effect on business performance, although this is subject to variation based on the capital structure. A higher debt level is not necessarily linked to higher business performance.

According to LB Akeem, EK Terer, and MW Kiyanjui (2014), the capital structure ratios (debt and equity) and success in the Nigerian manufacturing sector are negatively related, suggesting that funding should be done with more equity than debt.

According to Srivastava (2011), ownership structure has a significant impact on some accounting performance metrics in Indian markets, but its influence on stock market performance is minimal.

According to B Panda, D Bag (2019): whereas foreign institutional investment improves market performance for Indian listed companies, promoters and institutions improve

performance, whereas large owners have no impact on financial performance.

A Haldar, SVDN Rao (2011): The study aims to find the ownership structure that maximizes the performance of BSE-listed companies, as the performance of owner-controlled firms seems to be better, but there is no statistical evidence to support this.

Ranjani, R.P.C. and Hamidon, T.D. (2015): Contrary to popular belief, capital structure elements show conflicting relationships with financial success in industrial companies listed on the Colombo Stock Exchange.

A Suryanarayana, BR Rao (2018): The companies listed on the Bombay Stock Exchange's SENSEX index demonstrate a strong correlation between debt-to-equity ratios and return on equity, thus emphasizing the significance of capital structure.

FHB Fadzil & MAA Zraiq (2018): There is a strong positive correlation between ownership structure (both foreign and family) and business performance. This study provides information for further research.

MM Rashid (2020): In Bangladesh's listed public limited businesses, ownership structure, board characteristics, and company performance interact, demonstrating the mediation function of board features.

The study by B. Arosa, T. Iturralde, and A. Maseda in 2010 illustrates the conflicts and benefits associated with ownership concentration and how the success of family businesses varies over time with ownership concentration.

According to U. Uwuigbe & O. Olusanmi in 2012, there is a significant relationship between ownership structure and performance, where the listed companies on the Nigerian Stock Exchange experience a positive impact of institutional and foreign ownership on company performance.

M. Salim & R. Yadav (2012) concluded that although Tobin's Q shows positive correlations with certain loans, there is a negative correlation between business performance and short-term, long-term, and total loans in Malaysian listed companies.

According to Muhammad, H., & Shah, B. (2014), the cement companies listed on Karachi Stock Exchange show different correlations between capital structure variables and performance variables, which emphasize the need for an optimal capital structure.

Margaritis, D., & Psillaki, M. (2010): Conflicting theories about efficiency and leverage, taking ownership structure into account, show that the efficiency of French manufacturing enterprises affects their debt levels.

Hasan, M. B., Ahsan, A. M., Rahaman, M. A., & Alam, M. N. (2014): The capital structure of Bangladeshi firms shows contradictory relationships with firm performance measures, somewhat consistent with the Pecking Order Theory.

Ndudi, U. C., Rosemary, I. H., Emmanuel, N. C., Ayange, A., & Samuel, U. E. (2021): With a focus on Tobin's Q ratio and sound debt management practices, Nigerian manufacturing firms display diverse relationships between capital structure variables and performance indicators.

According to Nasimi, A. N. (2016), the London Stock Exchange-listed companies demonstrate a range of capital structure influences on the profitability measures, underlining the importance of debt/equity ratios and interest coverage.

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Twairesh, A. E. M. (2014): The impact of debt on ROA and ROE is emphasized by the strong correlation between the debt ratios and the performance measures of Saudi Arabian non-financial companies.

According to Mouna, A., Jianmu, Y., Havidz, S. A. H., & Ali, H. (2017), Moroccan companies prove that the ratio of debt has a negative influence on the indicators of business performance, which means that a lower amount of external financing is required for better performance.

RESEARCH METHODLOGY

The study uses data from secondary sources such as annual reports and electronic journals. The study is empirical and analytical in nature and covers companies listed on the Bombay Stock Exchange between 2015 and 2024. The debt/equity ratio and return on assets are some of the criteria used. Among the companies under scrutiny are Bajaj Auto, Tata Motors, and Ashok Leyland. The study will use statistical analysis such as regression analysis, which will be done using Excel.

OBJECTIVES.

• To investigate the relationship's longevity across time and determine how variations in the debt-to-equity ratio affect return on assets 10 years.

HYPOTHESIS

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Null Hypothesis (H0):

The debt-to-equity ratio and a company's return on assets do not significantly correlate.

Alternative Hypothesis (H1):

A company's return on assets and its debt-to-equity ratio do not significantly correlate.

RESEARCH PROBLEM

It is important to understand the implications of capital structure on business performance. Capital structure, which is affected by both internal and external factors, has a great influence on business. Studies aim to explain the complex relationship between capital structure decisions and business success, highlighting their pros and cons.

RESULT AND DISCUSSION

REGRESSION ANALYSIS OF ROA AND DEBT AND EQUITY RATIO OF ASHOK LEYLAND

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.755164
R Square	0.570272
Adjusted R Square	0.516556
Standard Error	2.981401
Observations	10

ANOVA					
	Df	*SS*	*MS*	*F*	*Significance F*
Regression	1	94.36693	94.36693	10.61644	0.011557
Residual	8	71.11003	8.888754		
Total	9	165.477			

	COEFFICIENTS	STANDARD ERROR	T STAT	P-VALUE	LOWER 95%	UPPER 95%	LOWER 95.0%	UPPER 95.0%
Intercept	8.679599	1.622285	5.35023	0.000686	4.938603	12.4206	4.938603	12.4206
Debt to equity	-9.95741	3.056024	-3.25829	0.011557	-17.0046	-2.9102	-17.0046	-2.9102

REGRESSION ANALYSIS OF ROA AND DEBT AND EQUITY RATIO OF TATA MOTORS

Regression Statistics	
Multiple R	0.725427
R Square	0.526244
Adjusted R Square	0.467025
Standard Error	3.724577
Observations	10

ANOVA					
	Df	*SS*	*MS*	*F*	*Significance F*
Regression	1	123.2754	123.2754	8.886333	0.017574
Residual	8	110.9798	13.87248		
Total	9	234.2552			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	12.56532	5.174196	2.428459	0.041301	0.633606	24.49704	0.633606	24.49704
DEBT TO EQUITY	-15.8098	5.303535	-2.981	0.017574	-28.0398	-3.57984	-28.0398	-3.57984

REGRESSION ANALYSIS OF ROA AND DEBT AND EQUITY RATIO OF BAJAJ AUTO

Regression Statistics	
Multiple R	0.495794

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R Square	0.245812
Adjusted R Square	0.151538
Standard Error	0.584535
Observations	10

ANOVA					
	Df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.89091	0.89091	2.607432	0.145027
Residual	8	2.73345	0.341681		
Total	9	3.62436			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	4.776628	0.937812	5.093376	0.000937	2.61403	6.939226	2.61403	6.939226
DEBT TO EQUITY	-0.39203	0.242782	-1.61475	0.145027	-0.95189	0.167823	-0.95189	0.167823

INTERPRETATION

Regression analysis of Ashok Leyland, Tata Motors, and Bajaj Auto reveals interesting results of the correlation between their debt-to-equity ratio and return on assets (ROA). The higher debt-to-equity ratio of Ashok Leyland and Tata Motors has a significant negative effect on ROA, indicating that the higher ratio of debt to equity has a negative effect on the return on their assets. This indicates that managing the debt-to-equity ratio is critical to maximize the return on assets (ROA) of such operations. Conversely, there is no statistically significant relationship between the return on assets (ROA) of Bajaj Auto and changes in the debt-to-equity ratio. This indicates that other factors may have a more significant effect on the return on assets of the company.

FINDINGS

Regarding Ashok Leyland, the debt-to-equity ratio and ROA have a statistically significant

negative association (p-value = 0.0116). 57% of the variation in ROA can be explained by the regression model. When the debt-to-equity ratio is zero, the intercept, which is 8.68, indicates a ROA of 8.68.

ROA falls by 9.96 for each unit rise in the debt-to-equity ratio.

Regarding Tata Motors: The debt-to-equity ratio and ROA have a statistically significant negative correlation (p-value = 0.0176). 52.6% of the variation in ROA can be explained by the regression model. When the debt-to-equity ratio is zero, the intercept, which is 12.57, indicates a ROA of 12.57.

ROA drops by 15.81 for every unit rise in the debt-to-equity ratio.

Regarding Bajaj Auto: There is no statistically significant correlation between ROA and the debt-to-equity ratio (p-value = 0.145). Of the variability in ROA, 24.6% can be explained by the regression model. With a 0% debt-to-equity ratio, the An rise in the debt-to-equity ratio has a marginally negative (but not statistically significant) impact on ROA.

SUGGESTION

Assess Comparative Analysis: To assess standing, compare financial performance measures and capital structure to peer companies or industry benchmarks.

Holistic Evaluation: To understand the impact of variables other than capital structure on financial performance, consider both qualitative and quantitative information.

Optimize Strategy: To optimize capital structure and overall business success, analyze the impact of different debt-to-equity ratios on financial performance.

CONCLUSION

The study comes to the conclusion that, for the chosen automakers listed on the Bombay Stock Exchange, capital structure significantly but firm-specifically affects financial performance. For Ashok Leyland and Tata Motors, the regression analysis shows a statistically significant negative correlation between the debt-to-equity ratio and return on assets, suggesting that a greater reliance on debt has a negative impact on asset profitability. Bajaj Auto, on the other hand, exhibits no discernible correlation between leverage and performance, indicating that internal efficiencies have a greater impact on profitability than capital structure choices. Overall, the results show that excessive financial leverage can lower firm performance and that different firms have different ideal capital structures, highlighting the necessity of careful and tailored financing strategies to increase long-term profitability.