



A STUDY ON CAPITAL STRUCTURE OF AMUL MILK LIMITED IN TAMIL NADU

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Abstract:

This study examines the study on capital structure of Amul Milk Limited in Tamil Nadu on a data of the period 2009-2023. Correlation and Multiple Regression are used to analysis the relationship between dependent variable (Debt equity ratio) and independent variable (profitability, return on assets, return on equity and solvency ratio). This concludes that solvency ratio and profitability return equity, return on assets have negatively associated with DER.

Key Words: Capital Structure, ROA, ROE, DER, Solvency

Introduction:

Capital structure is the particular combination of debt and equity used by a company to finance its overall operations and growth. Equity capital arises from ownership shares in a company and claims to its future cash flows and profits. Debt comes in the form of bond issues or loans, while equity may come in the form of common stock, preferred stock, or retained earnings. Short-term debt is also considered to be part of the capital structure. Financial decision is one of the important decisions of financial in any enterprise. Capital structure choice is an important for the managerial decision.

Research Objectives:

- To identify capital structure of the Amul Milk Limited
- To identify the positive or negative relationship between the factors affecting the capital structure and the debt ratio.
- To find out important variables that affects the debt ratio of the Amul Milk Limited by using multiple regressions.

Review of Literature:

Year	Author	Title of the Study	Objective	Data and Research Methodology	Findings
2019	Shireen Rosario, Kavita Chavalit	Capital Structure and its impact on Profitability: A Case of Indian Hotel Industry	To find if there is a pattern in the capital structure within the industry	Correlation Regression	The correlation analysis indicates positive relationship between debt variable and profit but slightly negative correlation among other variables.
2018	Venkates wararo podile Chhema venkata Siva Sree	Capital Structure Analysis of a Small Enterprise - A Case Study of M. G. Metallic Springs Pvt. Ltd	To examine the coverage of financial expenses in the small enterprise during the period of study	Chi-square test	In this paper composition of capital structure in the enterprise for a ten year is analysed. Leverage analysis was also done. Proprietary ratio, fixed assets to net worth ratio calculated for the study period.
2016	Hussain	Capital structure in the hospitality industry: The role of the asset-light and fee-oriented strategy	To explore the impact of independent of financial efficiency and test pecking order theory of trade theory of capital structure.	Correlation Regression	This study supports the trade off theory for all variables such as growth, profitability, tangibility. Thus; this study is more inclined toward the trade off theory.
2018	Hina Agha	Impact of Working Capital Management on Profitability	Identify determinants of capital structure for the companies of cement sector	Correlation Regression	To find out the correlation between dependent and independent variable regression model has been chosen. The independent variable including liquidity, profitability and COD have a significant impart and negatively related with debt ratio that means if these variable increase debt ratio will go down.

2015	Samir thakker	Capital structure in the hospitality industry: The role of the asset-light and fee-oriented strategy	Examine the structure and composition of working capital.	Correlation Regression	Finally, from all ratios calculated for knowing the financial position of the company. The company has good financial position and also attar ratio that means if the acts the investors and need to chance of losing the money in future.
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Methodology:

In this study is based on secondary data. The data collected from annual report of company concerned listed in the balance sheet. The study has been undertaken in Amul Milk Limited, the above data was collected on the basic of their consistency of performance, data availability and favourable accounting figures of this company.

Regression Model:

The Multiple regression models have been followed to test empirical relationship between the leverage and characteristics of to firm.

$$Y=a+b_1x_1+b_2x_2+b_3x_3+b_4x_4+b_5x_5$$

Variables:

Debit Equity Ratio:

The debt-to-equity ratio (D/E ratio) depicts how much debt a company has compared to its assets. It is calculated by dividing a company's total debt by total shareholder equity. Note a higher debt-to-equity ratio states the company may have a more difficult time covering its liabilities.

$$\text{Debt Equity} = \text{Total Debt} / \text{Shareholder's Equity}$$

Solvency Ratio:

A solvency ratio measures how well a company's cash flow can cover its long-term debt. Solvency ratios are a key metric for assessing the financial health of a company and can be used to determine the likelihood that a company will default on its debt.

$$\text{Debt-to-Equity Ratio} = \text{Total Debt} / \text{Total Shareholder's Equity}$$

Return on Assets:

Return on assets is a profitability ratio that provides how much profit a company can generate from its assets. In other words, return on assets (ROA) measures how efficient a company's management is in earning a profit from their economic resources or assets on their balance sheet.

$$\text{Return on assets} = \text{Net Income} / \text{Average Total Assets}$$

Profitability Ratio:

Profitability ratios are a type of accounting ratio that helps in determining the financial performance of business at the end of an accounting period. Profitability ratios show how well a company is able to make profits from its operations.

Return on Equity:

$$\text{Return on Equity} = \text{Net profit After Taxes} / \text{Shareholder's Equity} * 100$$

Result and Discussion:

Results of Correlation:

Table 1

Variable	R	R ²
Solvency Ratio	-0.318	0.101
Profitability	0.989	0.928
Return on Equity	-0.963	0.927
Return on Assets	0.518	0.268

** Correlation is significant at the 1% level (2 tailed)

* Correlation is significant at the 5% level (2 tailed)

The table 1 above represents the relationship between the various independent and dependent variable used in this study. Form this table it is clear that the variable solvency ratio, profitability, return on equity, return on asset have negatively associated with DER.

Results of the Regression:

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.999 ^a	0.998	0.996	.06812

a. Predictors: (Constant), Net profit, Solvency Ratio, Return on Equity, Profitability, Return on Asset.

The model summary table illustrates the magnitude of the variance in the dependent variables as described by the independent variable. The value of the Square is 0.998, which is approximately the dependent variable 99.8%variance of the "DER" is explained by independent variable of capital structure ratio.

ANOVA:

Table 3

Model	Sum of Square	DF	Mean Square	F	Sig
Regression	18.064	5	3.613	778.508	.000 ^b
Residual	.042	9	.005		
Total	18.105	14			

a. Dependent variable: Debt Equity Ratio

b. Predictors: (Constant), Return on Assets, Profitability, Return on Equity, Solvency Ratio

ANOVA test to find out whether the regression model is valid or not. F-Statistics is 778.508 which are very high and have a significant value less than 5% which indicates that the testing of ANOVA is highly significant and that the model is valid from the given predictors.

Regression co-efficients of Amul Private Limited:

Table 4

Variables	Model
(Constant)	311.05
Un-Standardized co-efficient	0.059
Standard error	0.195
T-value	0.303
P-value	0.769
(Solvency Ratio)	
Un-Standardized co-efficient	2.335
Standard error	0.710
T-value	3.289
P-value	0.009
(Profitability)	
Un-Standardized co-efficient	0.477
Standard error	0.30
T-value	15.772
P-value	0.000
(Return on Equity)	
Un-Standardized co-efficient	-0.005
Standard error	0.001
T-value	-4.609
P-value	0.001
(Return on Assets)	
Un-Standardized co-efficient	-0.055
(Standard error)	0.034
T-value	-1.635
P-value	0.136

The parameter of the regression model above the table is related. The table no 4.4 shows the significance of the individual independent variable in interpreting the dependent variable. The un-standardized co-efficient (B) value shows the magnitude and relationship between dependent variable debt equity ratio and independent variable DER and independent variables of capital structure ratio. The regression co-efficient returns on equity and profitability have positivity associated with DER.

Conclusion:

The purpose of this research study p2 to investigate the capital structure of Amul Milk Limited for this purpose Amul Milk Limited has been selected from Tamil Nadu as study sample and date is collected (2019 to 2023) and processed by using statistical tools. In this study profitability (0.928) and solvency ratio (0.101) with return on equity (-0.927 have negatively associated with DER.

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