



A Study of Capital Structure of Selected Power Companies of India

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Abstract

The main object of the study is to analyse the capital structure of selected power companies of India using ANOVA test with hypothesis of there is no difference in EPS of selected companies. The study includes the analysis of capital structure of selected power organisations of India including Adani Power Ltd, Reliance Power Ltd and Tata Power Ltd during 2013 to 2018 five year data. For evaluating the capital structure the study is based on selected ratio called Earnings per Share (EPS). As the Earnings per Share is an important financial measure, so that firms suggested that to have positive EPS ratio while deciding optimum level of capital structure as it leads to company's share price higher.

Key Words: Capital Structure, EPS, Adani Power Ltd, Reliance Power Ltd, Tata Power Ltd.

1. Introduction of Capital Structure

On the company's balance sheet both debt and equity can be found which used for company's expenses. Capital structure can be a mixture of a company's long-term debt, short-term debt, common stock, and preferred stock. Equity allows outside investors to take partial ownership in the company but Equity is more expensive than debt, especially when interest rates are low while Debt is one of the two main ways a company can raise money in the capital markets and get benefit from debt because of its tax advantages. Equity and Debt both are trade-off, firms have to make when they decide whether to use debt or equity to finance firms expenses and managers will balance the both while deciding the optimal capital structure. When researcher analyse to capital structure, they are most likely referring to a company's debt-to-equity ratio, which provides insight into how risky a company's borrowing practices are. But debt-to-equity ratio is not the only factor which is used to evaluate capital structure and other factors are also affecting the company's capital structure decision.

2. Literature review

Capital structure indicates to the firm's financial framework which consists of the Debt and Equity used to finance the firm. Capital structure is one of the popular topics among the scholars in finance field. In short, capital structure is a mixture of a company's debts (long-term and short-term), common equity and preferred equity. Capital structure is essential on how a firm finances its overall operations and growth by using different sources of funds, Modigliani-Miller (MM) theorem is the broadly accepted capital structure theory because is it the origin theory of capital structure theory which had been used by many researchers. According to MM Theorem, these capital structure theories operate under perfect market According to Ajanthan (2013).

According to Handoo and Sharma (2014), The optimal capital structure evolves persistently, and successful corporate leaders must constantly consider factors such as the company and its management, the economy, government regulation and social trends, the state of capital markets, and industry dynamics and also stated that any decision to increase or reduce leverage depends on market conditions and investors' acceptance of debt. According to Bello (2021), leverage has a positive relationship with assets tangibility. Growth rate and taxation also have a positive relationship with leverage, but this relationship is not statistically significant. The results also show that leverage has a negative relationship with age, liquidity and profitability. Ultimately, empirical findings suggest that the firm's age, assets tangibility, and liquidity are the most significant factors to explain the financial behaviour of Indian manufacturing firms.

Banking products represent the most significant financing source or SMEs, while the other instruments offered on the market, such as shares, debt securities and other financial instruments, are instead used in a residual manner, at the end they found that for entrepreneurs and managers to adopt financial solutions compatible with their business characteristics and suggests that the most profitable SMEs prefer to use profits, rather than debt, to finance investments (Mueller, Andreas & Sensini, 2021) international differences in capital structure norms can be of great importance as determinants of the capital structure of the foreign affiliates of multinational companies and find out that while size by itself or in conjunction with other variables is not a significant determinant of capital structure, both country and industry classification seem to be significant determinants of capital structure (Aggarwal, 1981).

3. Objectives

The main object of the study is to analyse the capital structure of selected power companies of India using ANOVA test.

- ❖ To get in-depth knowledge about optimum capital structure.
- ❖ To analyse what type of capital structure Indian power companies accepted.
- ❖ To evaluate Earnings per Share of selected power companies.
- ❖ To evaluate capital structure of selected Indian power companies by using F-test.

4. Research Methodology

The study includes the analysis of capital structure of selected power organisations of India including Adani Power Ltd, Reliance Power Ltd and Tata Power Ltd during 2013 to 2018 five year data. For evaluating the capital structure the study conducted the ratio namely Earnings per Share (EPS) which is evaluated by using ANOVA test at 5% significance level and based on below hypothesis.

Hypothesis:

H01: there is no difference between in EPS of selected power organisations.

H11: there is difference between in EPS of selected power organisations.

5. Earnings per Share

EPS indicates how much money a company makes for each share of its stock, and is a widely used metric to estimate corporate value. As an important financial measure, EPS is a tool that market participants use frequently to gauge the profitability of a company before buying its shares. A higher EPS indicates greater value because investors will pay more for a company's shares if they think the company has higher profits relative to its share price. Therefore the higher a company's EPS, the more profitable it is considered to be. [7]

Formula for calculating EPS

$$\text{Earnings per Share} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{End-of-Period Common Shares Outstanding}}$$

6. Findings and Analysis

6.1 Financial Ratios

TABLE 1: EPS of Adani Power Ltd, Reliance Power Ltd and Tata Power Ltd during 2013 to 2018.

YEAR	Adani Power Ltd	Reliance Power Ltd	Tata Power Ltd
2013-14	-1.04	0.2	3.5
2014-15	-2.84	0.09	3.3
2015-16	1.84	4.63	4.59
2016-17	-17.82	0.23	1.06
2017-18	-5.45	0.01	-12.05
Average	-5.062	1.032	0.08

Sources: EPS data collected from the website www.moneycontrol.com.

Analysis:

1. TABLE 1 show that the percentage of The Earnings per Share of Adani Power Ltd was influence with negative trend during the study period. Only in the year 2015-16 it was indicate positive with 1.84% and in the year 2016-17 it was -17.82% which is highly negative compared to other years.
2. The Earnings per Share in Reliance Power Ltd was positive and stable compared to other two companies. In the year 2015-16 the company noted high percentage of 4.63% but after words in the next year 2016-17 there was huge decline.
3. The Earnings per Share of Tata Power Ltd indicates vary up and downs trends during study period. In the year 2015-16 the company has high ratio of 4.59% compared to other years but in next year in 2017-18 there was down fall up to -12.05%.

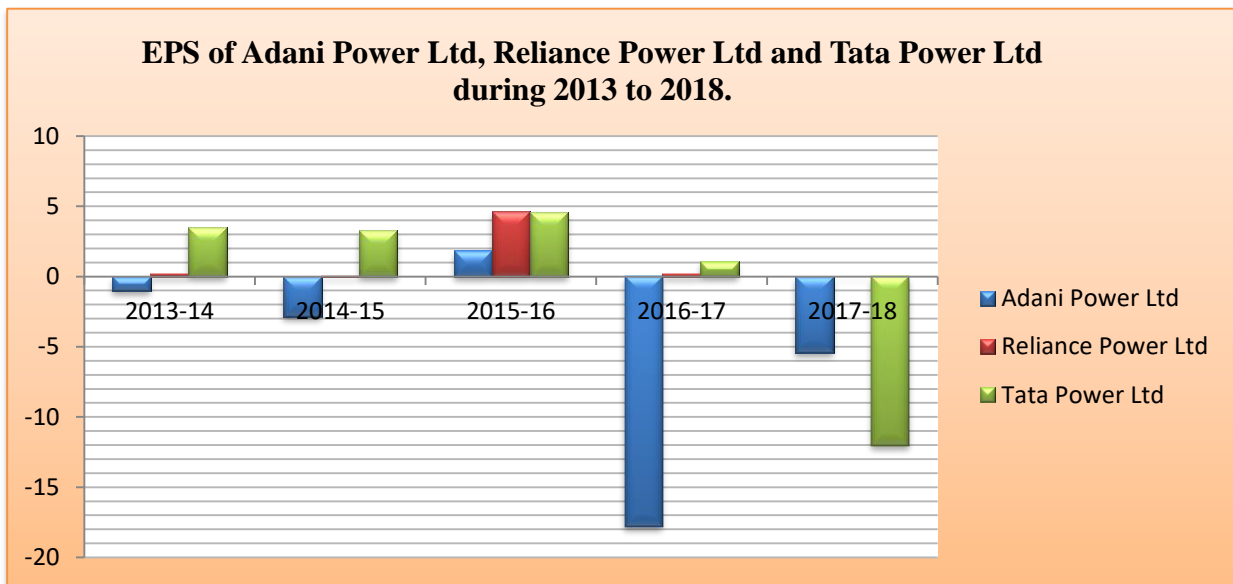


Chart: EPS of Adani Power Ltd, Reliance Power Ltd and Tata Power Ltd during 2013 to 2018.

6.2 ANOVA Table

TABLE 2: Analysis of 'F' Test in selected Power Companies under the study Earnings per Share Ratio

Source of Variation	Sums of Squares SS	Degrees of freedom DF	Mean Squares MS	F	p-value
Between rows	$SSR=210.2767$	$r-1=4$	$MSR=210.27674=52.5692$	$52.569228.5134=1.8437$	0.214
Between columns	$SSC=107.4722$	$c-1=2$	$MSC=107.47222=53.7361$	$53.736128.5134=1.8846$	0.2066
Error (residual)	$SSE=228.1068$	$(r-1)(c-1)=8$	$MSE=228.10688=28.5134$		
Total	$SST=545.8557$	$rc-1=14$			

Sources: Results obtained by the author using www.atozmath.com

6.3 Analysis

1. F for between columns

$F(4, 8)$ at 0.05 level of Significance. $=3.8379$

As calculated $FR = 1.8437 < 3.8379$

So, H_0 is accepted, Hence there is no significant differentiating between Rows.

2. F for between columns

$F(2, 8)$ at 0.05 level of significance $=4.459$

As calculated $FC = 1.8846 < 4.459$

So, H₀ is accepted, Hence there is no significant differentiating between columns.

7. Conclusion

The study conducted with the purpose of to get in-depth knowledge about optimum capital structure in selected power companies of India based on EPS ratio by using ANOVA Test. The above statistic result shows that the null hypothesis is accepted which indicates that there is no difference between EPS of selected companies. But study suggested that the EPS ratio of Adani Power Ltd is trend to negative which affects the company's equity share price negatively so that company should borrow debt up to optimum level of capital structure otherwise it can lead firm in vary critical situation.

8. References

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