

**Impact of Capital Structure on Profitability with Special Reference to HDFC Bank**

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***Abstract***

*The purpose of this paper is to empirically investigate the impact of capital structure on Profitability with Special Reference to HDFC Bank . Multiple regression analysis is used to study the impact of capital structure on Profitability.*

*Capital structure measures (i.e. No of equity shares and borrowings) and profitability measures (i.e. Profit after tax – PAT ) were used based on a sample of HDFC bank from 2009-2018, the results reveal that capital structure choice decision, in general terms, has a impact on firm's performance. This is the first study that examines the impact of capital structure on Profitability in HDFC*

*Keywords: Capital, Structure, Profitability, PAT*

**1. General Introduction**

**1.1 Introduction**

Capital structure is one of the most complex areas of financial decision making due to its interrelationship with other financial decisions variables. Profitability is the main component in the financial decision. Because the whole aspects of capital investment decision, capital structure decision is the vital one, since the profitability of an enterprise is directly affected by such decision. Hence, proper care and attention need to be given while making the capital structure decision.

The study is regarding the impact of capital structure on profitability with reference to HDFC Bank will help us to know the potential problems in capital structure and profitability. Now a day the trading firms must conduct its business in a highly complex and competitive business environment. Therefore, these types of research findings will be benefited in selecting the capital structure to achieve the optimum level of firm's profitability. This study shows the statistical analysis, carried out seeking to discover the impact of capital structure on profitability of the listed trading companies in the Colombo Stock Exchange

## **1.2 Purpose Statement**

The main problem of this research is to study “To what extent the capital structure influence on the profitability of HDFC Bank”

## **1.3 Review of literature**

**Modigliani and Miller (1958)** have a theory of “capital structure irrelevance” where argue that financial leverage does not affect the firm’s market value with assumptions related to homogenous expectations, perfect capital markets and no taxes. **Jensen and Meckling (1976)** argue that the shareholders-lenders conflict has the effect of shifting risk from shareholders and of appropriating wealth in their favour as they take on risky investment projects(asset substitution). It is difficult and costly for debt holders to be able to assess and monitor Firms in an oligopolistic market will follow the strategy of maximizing their output in favourable economic conditions to optimize profitability (**Brander & Lewis 1986**). The theory also holds in unfavourable economic conditions; firms would take a cut in production and reduce their profitability.

**Tran Dinh Khoi Nguyen and Neelakantan Ramachandran(2006)** studied factors influencing the capital structure of small and medium sized enterprise in Vietnam. The conclusion from this study was they found that firms size and level of business risk have a significant relationship with measure of capital structure.

**Gill,etal (2011)** findings regarding the effect of capital structure on profitability by examining the effect of capital structure on profitability of the American service and anufacturing firms. The findings of this paper also show a positive relationship between short-term debt to total assets and profitability, long-term debt to total assets and profitability, and between total debt to total assets and profitability in the manufacturing industry.

**Amarjit Gil(2011)** studied effect of capital structure on profitability evidence from United States. the study applied correlation and non-experimental research design and

their findings was that capital structure does impact profitability

**Asha E Thomas(2013)** studied the detailed analysis of impact of leverage on profitability and measuring efficiency of capital decision taken in cement industry. The methodology used is with due care on requirements from a set of 21 cement companies data and they arrived at a conclusion that debt is preferred over equity if external financing required.

**Mohammed M khalifa tailab(2014)** studied the effect of capital structure on profitability of energy American firms and study adopted a method of return on equity and assets plus data was secondary and they observed that an Insignificant either negative or positive relationship observed between long term debt, debt and equity and size in terms of total assets to profitability

**Preeti Gupta(2015)** studied relationship between capital structure and profitability of foreign promoter's holding companies in India; they collected secondary data and arrived at a conclusion that there is a negative relationship on firm's performance and value.

**Dissanayake TDSH and palihena PDNK(2015)** studied the relationship between capital structure and financial performance of licensed commercial banks in Sri Lanka . Usage of secondary data was used from financial statements and earning per share was used as a main tool for analysis. They found that capital structure had a strong relationship in gaining profit

**Prof. T Velnampy(2017)** studies the problem of how capital structure influences on signalling the Banks profitability. It was a quantitative research and the insights they got after conducting research was that the Banks are more in Debt and Increases level of Debt finance increases Interest payment.

**YV Reddy and Parab Narayan(2018)** studied the relationship between liquidity and profitability and impact of financial leverage and liquidity on financial performance of pharmaceutical companies. The study is based on secondary data collected from Nifty Index and findings were that there is no significant impact of leverage on profitability and

### **1.4 Objectives of the study**

1. To examine the relationship between Capital structure and Profitability
2. To measure the impact of Capital structure on Profitability

### **1.5 Hypothesis**

**H<sub>0</sub>**: There is no significant relationship between the capital structure and profitability of HDFC Bank

**H<sub>a</sub>**: There is a significant relationship between the capital structure and profitability of HDFC Bank

## **2. Methodology**

### **2.1 Type of study**

The type of research is based on cause and effect as it studies the impact of capital structure on Profitability. Hence its Causal research.

### **2.2 Type of Data**

The present study used secondary data for the analysis.

### **2.3 Sources of Data**

The secondary data was collected through Capital line, Money Control and Investing.com

### **2.4 Sampling Method**

Sampling technique of this study was non probability sampling, because the study data used was secondary data which was purposive and quantitative. From the Private Sector Banks HDFC Bank was selected for the study.

### **Limitations**

1. The findings of the study are topic specific and hence it might not have much relevance outside researcher's domain.
2. This study is limited to only one bank which was randomly selected for the study from the hub of Private Sector bank.

3. Data was collected for a time span of 2009-2017.
4. Only two major factors to assess capital structure was taken to consideration and only one to assess profitability.

### **3. Results and discussion**

This study was undertaken to analyse the impact of Capital Structure on Profitability of HDFC bank The Dependent variable is taken as PAT (profit after tax) and the independent Variable is taken as No of Equity shares and borrowings of HDFC Bank.

#### **3.1 Correlation**

Correlation was conducted to find out if there is any relationship between Capital Structure (no of equity shares) and Profitability (PAT, Interest income) **H<sub>0</sub>**:- Correlation Coefficient is not significant

**H<sub>a</sub>**:- Correlation Coefficient is Significant

**Table 1 Correlation (Bivariate)**

<b>Correlation</b>	<b>r value</b>	<b>p value</b>
Equity and PAT	0.938	<0.01
Equity and Borrowings	0.756	0.011
PAT and Borrowings	0.676	0.032

#### **Result**

The p value for all the above 3 relationships are less than 0.05. Therefore, the result is significant. Hence H<sub>0</sub> is rejected

#### **3.2 Regression**

In this test we try to find out the actual impact of capital structure (no of equity shares) on Profitability (PAT). The Regression Equation is given below,

$$Y = a + b_1X_1 + b_2X_2 + e$$

$$PAT = a + b_1(\text{No of Equity Shares}) + b_2(\text{borrowings}) + e$$

**Table 2 Model Summary**

<b>Model</b>	<b>R</b>	<b>R square</b>	<b>Adjusted R square</b>
Regression	.931	.886	.828

**Results**

This shows that 88.6% variance in profit after tax (PAT) is caused by the amount of equity shares issued and paid up by the HDFC Bank. Since more than 60% of Variance is Explained in the model summary hence ,it can be considered as a good model

**ANOVA**

ANOVA is conducted to check if the significance of R value or is used to check whether the model is a good fit or not.

**H<sub>0</sub>**: - Model is not a good fit

**H<sub>a</sub>**:- Model is a good fit

**Table 3 ANOVA**

<b>Model</b>	<b>F</b>	<b>Sig</b>
Regression	22.592	.001

**Results**

It shows that F statistics is 22.592 and p value 0.001. Since p value < 0.05, the result is significant. Therefore, the result is significant. Hence H<sub>0</sub> is rejected

**Regression Coefficient**

Test for Significance is conducted to check the validity of the coefficients computed through Regression analysis. The level of significance is at 5%

**H<sub>0</sub>**:- the regression coefficient  $\beta$  is not significant,  $\beta=0$

**H<sub>a</sub>**:- the regression coefficient  $\beta$  is significant,  $\beta\neq 0$

**Table 4 Coefficients**

STAT	A	Equity Shares	Borrowings
Regression coefficient	-315696.174	745.369	-.039
T value	-4.267	4.529	-.178
p value	.004	.003	.864

## Results

The regression coefficients of .Equity shares is 745.369, p value 0.003 and Borrowings is - 0.039, p value 0.864. Since p value < 0.05 it is significant for Equity shares and not significant for Borrowings (p value >0.05)

## 4. Findings and Conclusions

### 4.1 Findings

The study has been aimed at finding out the **Impact of Capital Structure on Profitability with Special Reference to HDFC Bank**. Data has been collected for 10 year for Equity Shares, borrowings, PAT from Capital Line, Money Control and Investing.com The data was analysed using SPSS tool and following inferences have been drawn on various tests run.

- There is a positive correlation between Equity and PAT, as Equity increases, PAT also increases
- There is a positive correlation between Equity and borrowings, as Equity increases Borrowings, also increases.
- There is a positive correlation between Borrowings and PAT, as Borrowings increases, PAT also increases
- Regression analysis was conducted between Equity. borrowings and Profit after tax , there was a significant impact and it means that with a unit increase in issue of equity shares there is an increase in profit after tax and with a unit decrease in borrowings, there is an increase in profit after tax and vice versa
- The Beta value i.e regression coefficient indicates that capital structure plays a prominent role in the profitability of the firm as well.
- Regression analysis shows that only no of equity shares have an impact on profit after

tax which was taken as the dependent variable and borrowings has a weak or no impact on profit after tax

- Capital structure and profitability's relationship cannot be left out because the increment in the profitability is needed for the long-term survivability of the company.

## **4.2 Conclusion**

The main aim of conducting this study is to provide an empirical evidence regarding impact of capital structure on profitability of HDFC Bank. The levels of equity and debt affect risk and cash flow and, hence, the amount that an investor would be and needed be willing to pay for the company or for an interest in it. In conclusion, the finding of the study gave an insight that the capital structure has a significant impact on profitability of main business operations of bank. This implies that managers need to consider this impact in their financing or capital structure decision. Analysing the results of HDFC Bank, the company's capital structure is mostly composed of equity capital as compared to debt which is less in proportion. Also the company is very good in employing its overall capital and that is one of the main reasons for this company to be very efficient in serving its debt as well as equity, which also implies that the company is accruing good profits and thus ensuring that its overall profitability is up to the mark.

## **4.3 Suggestions**

On the basis of the findings and conclusions of the study, the following recommendations have been made towards HDFC Bank

- A proper Capital structure can be used that is a mix of debt and equity so that they can increase their profitability as there was a positive relationship between both the variables through the correlation analysis done in the study.
- They should also focus on the factors determining the profitability like profit after tax as they are the major internal and external factors affecting profitability of the Bank.

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