Analysis of Profitability of Selected Two Major Two-Wheeler Automobile Companies In India.

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Abstract
The essence of life is "Development". It must be in a continuous form to maintain a dynamic balance in the universe. The policy of Liberalization and Privatization has brought radical changes in the economy. Indian companies have evolved suitable financial strategies to play a pivotal role in the liberalized economy. The automobile industry in India is now working in terms of the dynamics of an Indian open market. The profitability of a firm is useful for the distribution as dividend among its shareholders. Therefore it is necessary for a firm to keep a sound and ideal capital structure to maximize its profit and wealth. The present study is an attempt to examine the trends of profitability of two leading Indian automobile two-wheeler companies namely Hero Honda Motors Ltd (which is now known as Hero MotoCorp Ltd.) and Bajaj Auto Ltd during the period of five years i.e. from 2005-06 to 2009-10.

Secondary data collected from the published annual reports of the sample companies are used in the study. Trends and ratio analysis techniques of profitability are used. To know the impact of trading on equity, relationship between debt-equity ratio, dividend per share and earning per share has been worked out. The findings of the study reveal that the ratios of the Hero Honda Motors Ltd is better than that of the Bajaj Auto Ltd. On the whole, it may be concluded that the profitability of both the selected companies is satisfactory but Hero Honda Motors Ltd is more effective in its performance that to Bajaj Auto Ltd.

Keywords: Capital Structure, Securities, Profitability

Introduction
Capita structure decision is very crucial and important for any organization in any sector or economy. It is always very difficult for organizations to identify or get the right combination of debt and equity (Capital Structure), which ultimately satisfies them or brings favorable and profitable results for the organizations. The factor of profitability also plays an important role in capital structure decisions, because the firms which get high rates of return on investment do not use high debt, but they use relatively little debt, as high rates of return on investment make them able to do financing with internally generated funds. Capital structure decision is very vital for any organization; every organization wants a mix or arrangements that eventually achieves or increases its profitability and overall value. Different alternatives available to companies to finance its self sometimes through issuing shares securities, or some time from debt, organizations achieve different combinations of huge or small amount of debt. An organization takes the combinations, which increase their efficiency and profitability and its market value.

This study examines the relationship between capital structure and profitability of the two major Indian automobile companies. This study is organized as follows: First research objectives and importance are shown, and then the literature for the relevant theoretical and empirical work on capital structure and its effect on profitability are reviewed. After that, the methodology and framework which includes sample and the tools & techniques used in the empirical analysis is presented. After words, separate section portrays and discusses the data analysis, discussion and statistical results. Finally the conclusions are presented.

Research Objectives
The main objective of present study is to examine the trends of profitability of two leading Indian automobile two-wheeler companies i.e. Hero Honda Motors Ltd, which is now known as Hero MotoCorp Ltd. and Bajaj Auto Ltd. Other objectives are as follows:

To know the trends and its impact.
To know the different ratios and its impacts.
To examine the influence of various factors affecting the
profitability decisions of Indian companies. To scrutinize the overall performance and contribution of the automotive industry. To study the financial pattern adopted by sample companies.

Research Importance
This relationship between capital structure and profitability cannot be ignored because the improvement in the profitability is necessary for the long-term survivability of the firm. Because interest payment on debt is tax deductible, the addition of debt in the capital structure will improve the profitability of the firm. Therefore, it is important to test the relationship between capital structure and the profitability of the firm to make sound capital structure decisions. The lack of a consensus about what would qualify as optimal capital structure in the Indian automobile industry has motivated me to conduct this research. A better understanding of the issues at hand requires a look at the concept of capital structure and its effect on the firm's profitability.

Literature Review
Modigliani and Miller (1958) have a theory of “capital structure irrelevance” where in they argue that financial leverage does not affect the firm’s market value with assumptions related to homogenous expectations, perfect capital markets and no taxes. Sarkar and Zapatero (2003) find a positive relationship between leverage and profitability. Myers and Majluf (1984) find that firms that are profitable and generate high earnings are expected to use less debt capital compared with equity than those that do not generate high earnings. Sheel (1994) showed that all leverage determinant factors studied, excepting firm size, are significant to explained debt behavior variations. Gleason (2000) using data from retailers in 14 European countries, which are grouped into 4 cultural clusters, it is shown that capital structures for retailers vary by cultural clusters. This result holds in the presence of controlled variables. Using both financial and operational measures of performance, it is shown that capital structure influences financial performance, although not exclusively. A negative relationship between capital structure and performance suggests that agency issues may lead to use of higher than appropriate levels of debt in the capital structure, thereby producing lower performance. Hennessy and Whited (2005) developed a dynamic trade-off model with endogenous choice of leverage, distributions, and real investment in the presence of a graduated corporate income tax, individual taxes on interest and corporate distributions, financial distress costs, and equity flotation costs. The study explains several empirical findings inconsistent with the static trade-off theory and show that there is no target leverage ratio, firms can be savers or heavily levered, leverage is path dependent, leverage is decreasing in lagged liquidity, and leverage varies negatively with an external finance weighted average. Using estimates of structural parameters, they find also that simulated model moments match data moments. Chiang (2002) results show that profitability and capital structure are interrelated, the study sample includes 35 companies listed in Hong Kong. Rahaman (2007) found a significant capital structure effect on the profitability for non-financial firms listed on Islamabad Stock Exchange. Mendell (2006) investigates financing practices across firms in the forest products industry by studying the relationship between capital structure and profitability in the presence of controlled variables. They find that simulated model moments match data moments. Chiang (2002) results show that profitability and capital structure are interrelated, the study sample includes 35 companies listed in Hong Kong. Rahaman (2007) found a significant capital structure effect on the profitability for non-financial firms listed on Islamabad Stock Exchange.

Empirical Results
Abor (2005) seeks to investigate the relationship between capital structure and profitability of listed firms. The study finds a positive relationship between capital structure and profitability and a negative relationship between capital structure and profitability of listed firms on the Ghana Stock Exchange and find a significantly positive relationship between the ratio of short-term debt to total assets and ROE and negative relationship between the ratio of long-term debt to total assets and ROE. Apositive relationship between non-debt tax shields and debt, and a negative relationship between firm size and debt. Abor (2005) seeks to investigate the relationship between capital structure and profitability by examining the effect of capital structure on profitability by considering a sample of 272 American firms listed on New York Stock Exchange. The sample consists of 272 American firms listed on New York Stock Exchange for a period of 3 years from 2005 – 2007. A positive relationship between the ratio of long-term debt to total assets and profitability is observed. The findings of this paper show also 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.
Hypothesis
Hypothesis-1
H₁: Profitability ratios of the firms in an industrial sector are similar.
H₀: Profitability ratios of the firms in an industrial sector do differ significantly among firms.

Hypothesis-2
H₁: There is no effect of capital structure on company’s profitability and liquidity.
H₀: There is an effect of capital structure on company’s profitability and liquidity.

Hypothesis-3
H₁: There is no relationship between the DER(%), DPS (Rs), and EPS (Rs).
H₀: There is a relationship between the DER(%), DPS (Rs), and EPS(Rs).

Research Methodology
The study has been carried out for a span of five years i.e. during the period 2005-06 to 2009-10. For this purpose secondary data have been used which are collected from published annual reports of the sample companies. Some other articles, journals and past research work about the sample companies available on internet have also been used. In this study purposive method of sampling is used. As automobile industry is an oligopolistic industry, selection of two companies as sample was considered.

Tools And Techniques For Data Analysis
Trend analysis of Profitability.
Ratio analysis of Profitability.
Relationship between the DER (%), DPS (Rs), and EPS (Rs).

Empirical Findings and Analysis:
TREND ANALYSIS OF PROFITABILITY
Trend analysis, also known as index of financial statements analysis, is a simplified form of horizontal analysis; trend only calculates the percentage increase or decrease, the absolute amount is not listed in column. Trend analysis is done by observing the successive phases of the accounting statements, comparing the amount of the related projects, analyze changes in some indicators of change, on this basis, and determine trends, which may occur in the future to anticipate the results of an analytical method. The use of trend analysis, report users can learn the basic trend of changes in the project to determine whether or not this favorable trend of change, and to predict the future development of enterprises.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>HERO HONDA MOTORS LTD</th>
<th>BAJAJ AUTO LTD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EBDIT (in Rs. 100 cr)</td>
<td>Simple Trend (%)</td>
</tr>
<tr>
<td>2005-06</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>2006-07</td>
<td>230</td>
<td>115</td>
</tr>
<tr>
<td>2007-08</td>
<td>250</td>
<td>120</td>
</tr>
<tr>
<td>2008-09</td>
<td>280</td>
<td>113</td>
</tr>
<tr>
<td>2009-10</td>
<td>300</td>
<td>120</td>
</tr>
</tbody>
</table>

The EBDIT of Bajaj Auto Ltd. was reduced by 28% & 37% in the year 2008 & 2009 respectively in comparison with the sale of 2007. So is reflected in the ratio, but still the EBDIT margin was increased in the year 2009 on year to year basis. The trend shows continuous and steady growth with Hero Honda Motors Ltd., but surprisingly the ratio has been increased by 150% in the year 2010 to the year 2009.
The ROCE of Hero Honda Motors Ltd shows continuous growth as against Bajaj Auto Ltd, which was decreased by 50% in the year 2006 & 2009, but still the EBDIT margin was increased in the year 2009 on year to year basis in Bajaj Auto Ltd.

The ROCE of Bajaj Auto Ltd shows nearly 40% of the ROCE of Hero Honda Motors Ltd in the year 2006, but within the given period of five years, they have increased the ROCE by 114%, but again still it is not up to the mark.

The ROCE of Hero Honda Motors Ltd has been increased from 70.26% (2006) to 85.93% (2010), showing an increase trend by 1/3rd during the given period of five years.
Earning per share of Hero Honda Motors Ltd was Rs 48.64 in the year 2006, and it has been increased to Rs 111.77 in the span of five years. It means it has increased by 130%.

In Bajaj Auto Ltd, EPS was Rs.108.87 in the year 2006 and was decreased to Rs 52.25 in the year 2008 (after issuing the bonus share and the demerger), but within the span of five years it has been decreased even after giving the impact of bonus share. The growth in EPS of Bajaj Auto Ltd, over the period is nearly 50% even after giving the impact of bonus issue.

In comparison of Bajaj Auto Ltd with Hero Honda Motors Ltd, shows that the Bajaj Auto Ltd has crossed the level of EPS than that of Hero Honda Motors Ltd, even after issuing bonus shares and the demerger.

The Total Assets of the Hero Honda Motors Ltd has been increased by 61% during the given period. But we may not compare in case of Bajaj Auto Ltd as the business of Bajaj is demerged in three companies in the year 2008 but again it shows some increase in the assets.
The Profit after Tax (PAT) of the Hero Honda Motors Ltd shows no significant change in the first three years, but in the year 2009 it has been increased by 32% and 130% in the year 2010. Thus the PAT has been increased by 1.3 times during the period of five years.

In Bajaj Auto Ltd, it has been increased by 15% in the year 2007, but PAT has been increased by 0.55 times over a period of five years. That shows better margin and constant increase in the profit margin in the Hero Honda Motors Ltd in comparison of Bajaj Auto Ltd.

Net Sales (after Excise) trend of the Hero Honda Motors Ltd shows steady growth even on year to year basis and overall shows the growth of 82% during the period as against the overall growth of 58% in Bajaj Auto Ltd.

In Bajaj Auto Ltd, negative growths were achieved during the year 2008 and 2009.
2. PROFITABILITY RATIOS:

Profitability is an indicator of the efficiency with which the operations of the business are carried on. Poor operational performance may indicate poor sales and hence poor profits. A lower profitability may arise due to the lack of control over the expenses. Profitability ratios measure management overall effectiveness as shown by the returns generated on sales and investments. Bankers, financial institutions and other creditors look at the profitability ratios as an indicator whether or not the firm earns enough profit to pay interest for the use of borrowed funds and whether the ultimate repayment of their debt appears reasonably certain. Owners are interested to know the profitability as it indicates the return which they can get on their investments. Following are the important profitability ratios.

Profitability Ratios Related To Sales

(1) Net profit ratio = \( \frac{\text{Net profit}}{\text{Net Sales}} \)

Profitability Ratios Related To Investment

(2) Return on total assets = \( \frac{\text{Net profit before interest and tax}}{\text{Total assets}} \) 100

(3) Return on Capital Employed = \( \frac{\text{Net profit before interest and tax}}{\text{Capital employed}} \) 100

(4) Return on shareholders' funds = \( \frac{\text{Net profit after interest and tax}}{\text{Shareholder's funds}} \) 100

(5) Return on Equity shareholders' funds = \( \frac{\text{Net profit after interest, tax & preference dividend}}{\text{Equity shareholders' funds}} \) 100

(6) Earning per share (EPS) = \( \frac{\text{Net profit after interest, tax & preference dividend}}{\text{Number of outstanding equity shares}} \)

(7) Dividend Pay out ratio = \( \frac{\text{Dividend per equity share}}{\text{Earning per equity share}} \)

RATIO - ANALYSIS OF PROFITABILITY FOR THE PERIOD OF FIVE YEARS:

<table>
<thead>
<tr>
<th>NAME OF RATIOS</th>
<th>2005/06</th>
<th>2006/07</th>
<th>2007/08</th>
<th>2008/09</th>
<th>2009/10</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit Ratio</td>
<td>11.14%</td>
<td>14.55%</td>
<td>08.66%</td>
<td>13.14%</td>
<td>09.36%</td>
<td>08.56%</td>
</tr>
<tr>
<td>Return on Total Assets</td>
<td>70.21%</td>
<td>27.87%</td>
<td>53.11%</td>
<td>26.50%</td>
<td>50.80%</td>
<td>42.97%</td>
</tr>
<tr>
<td>Return on Capital Employed</td>
<td>65.05%</td>
<td>24.81%</td>
<td>47.81%</td>
<td>23.84%</td>
<td>45.66%</td>
<td>37.01%</td>
</tr>
<tr>
<td>Return on shareholders' funds</td>
<td>68.64%</td>
<td>108.87%</td>
<td>42.96%</td>
<td>122.35%</td>
<td>48.47%</td>
<td>52.25%</td>
</tr>
<tr>
<td>Return on Equity shareholders' funds</td>
<td>50.86%</td>
<td>111.77%</td>
<td>63.21%</td>
<td>89.31%</td>
<td>41.12%</td>
<td>36.74%</td>
</tr>
<tr>
<td>EPS (Rs.)</td>
<td>10.40</td>
<td>14.09</td>
<td>14.41</td>
<td>10.73</td>
<td>11.64</td>
<td>11.00</td>
</tr>
<tr>
<td>Dividend Pay out Ratio</td>
<td>70.21%</td>
<td>27.87%</td>
<td>53.11%</td>
<td>26.50%</td>
<td>50.80%</td>
<td>42.97%</td>
</tr>
</tbody>
</table>

Interpretations of above Ratios:

1) Net Profit Ratio: The average net profit ratio of Hero Honda Motors Ltd and Bajaj Auto Ltd are nearly the same. But comparing the net profit margin of the automobile industry, it shows greater margin ratio which is constant throughout the period. It indicates the quality production and ultimate faith of the customers.

2) Return on Total Assets Ratio: The average ratio of Hero Honda Motors Ltd is 62.21% as Bajaj Auto Ltd has achieved 37.73%, because Bajaj Auto Ltd was established in the year 1945 and Hero Honda Motors Ltd was established in the year 1984. Hero Honda Motors Ltd had invested in the fixed asset after 40 years of incorporation of the Bajaj Auto Ltd at an inflated cost even then the ratio is nearly 65% more to Bajaj Auto Ltd.

3) Return on Capital Employed Ratio: The average rate of return on capital employed in Hero Honda Motors Ltd is 68% higher to Bajaj Auto Ltd, which shows the better utilization ratio and their asset-management contributes to the profit at a larger scale though they are the supportive assets.

4) And 5) Return on shareholders' fund Ratio and Return on Equity shareholders' fund Ratio: As both the companies have not used any preference share capital, both the ratios remain same during the period. The average ratio of Hero Honda Motors Ltd is nearly 10% more to the ratio of Bajaj Auto Ltd. Particularly when Hero Honda Motors Ltd has invested their capital after 40 years to Bajaj Auto Ltd. During this period the average bank-rate was between 10 to 12% and both the companies have earned the return by 40% on equity shareholders' fund which clearly indicates the greater efficiency of management, better product and untapped demand.
The theoretical addition of debt decreases earnings and because of that Dividend Per Share as well as Earning Per Share also decreases. In the case of Hero Honda Motors Ltd, debt has declined from 9% in 2005-06 to 2% in the year 2009-10 against that DPS and EPS shows fluctuating trend. But it shows negative relationship between debt during the period under study. Debt has declined but EPS and DPS has increased, which proves that the known theory is not applicable here. Any reduction to debt has not resulted into any decrease in DPS and EPS because their profit margin is higher to the prevailing rate of interest. While in Bajaj Auto Ltd, debt has increased from 31% in the year 2005-06 to 45% in the year 2009-10 against which DPS has not increased but EPS has slightly increased. But again it does not give the true picture regarding relationship between DER,DPS and EPS.  

5) Dividend Pay out ratio: The average ratio (including the silver jubilee dividend declared by Hero Honda Motors Ltd in the year 2009-10 and demerger in the year 2008-09 of The Bajaj Auto Ltd) is 50% and 38% respectively for Hero Honda Motors Ltd And Bajaj Auto Ltd. The ratio of both the companies between 2005-06 to 2007-08 where nearly same. In the year 2008-09 the Bajaj Auto Ltd had declared the bonus shares in the ratio 2:5 indicates the same dividend per share after diluting the impact of bonus Shares. Both the companies are inversely friendly as their average dividend payout ratio is 50% and Bajaj Auto Ltd has issued bonus shares in the year 2008-09 while Hero Honda Motors Ltd has distributed 55% silver jubilee dividends.

6) Earning Per Share (in Rs.): The average earning per share of Hero Honda Motors Ltd Is Rs. 63.21 and Bajaj Auto Ltd is Rs. 89.31 shows greater earnings of Bajaj Auto Ltd, but while analyzing the ratio we must keep in our mind that Bajaj Auto Ltd had Invested their capital before 40 years to Hero Honda Motors Ltd. the face value of the Hero Honda Motors Ltd is Rs. 2 and its EPS is Rs. 31.60 times to the face value as against Bajaj Auto Ltd by 9 times to the face value.

The ratio of both the companies between 2005-06 to 2007-08 where nearly same. In the year 2008-09 the Bajaj Auto Ltd had declared the bonus shares in the ratio 2:5 indicates the same dividend per share after diluting the impact of bonus Shares. Both the companies are inversely friendly as their average dividend payout ratio is 50% and Bajaj Auto Ltd has issued bonus shares in the year 2008-09 while Hero Honda Motors Ltd has distributed 55% silver jubilee dividends.

3. RELATIONSHIP BETWEEN DER (%), DPS (Rs) AND EPS (Rs.):  

<table>
<thead>
<tr>
<th>YEAR</th>
<th>HERO HONDA MOTORS LTD</th>
<th>BAJAJ AUTO LTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>06</td>
<td>35</td>
</tr>
<tr>
<td>2006-07</td>
<td>23</td>
<td>48.95</td>
</tr>
<tr>
<td>2006-08</td>
<td>04</td>
<td>19</td>
</tr>
<tr>
<td>2007-08</td>
<td>02</td>
<td>20</td>
</tr>
<tr>
<td>2008-09</td>
<td>05</td>
<td>60</td>
</tr>
</tbody>
</table>

The table above shows that the relationship between DER and DPS is not applicable here. Any reduction to debt has not resulted into any decrease in DPS and EPS because their profit margin is higher to the prevailing rate of interest. While in Bajaj Auto Ltd, debt has increased from 31% in the year 2005-06 to 45% in the year 2009-10 against which DPS has not increased but EPS has slightly increased. But again it does not give the true picture regarding relationship between DER,DPS and EPS.  

Concluding Observations:
1) Trend analysis only tells us about the growth made over a period. But it does not give us the fair picture of the comparison of the two companies. It does not compare the actual figures of the two companies. As far as growth is concerned Bajaj is growing very rapidly and it is a point of concern for Hero Honda. Bajaj is way ahead in terms of operating income and PBDIT growth as compared to Hero Honda. Cost of sales for Hero Honda increases much significantly but for Bajaj it turns out to more than 600%. In terms of profits before and after tax Hero Honda makes some good increases especially over the last 2 years. But Bajaj declines in the year 2008, though it picks up growth again in the year 2009.  
2) Net profit and Gross profit ratio tell us what percent of sales is our gross profit and what percentage is the net profit. Hero Honda is better in both the cases making higher profits than Bajaj.
3) Operating ratio and cost of goods sold ratio establishes a relationship between the expenses and the net sales. Lower the ratio, the better it is. Hero Honda in this case has a better ratio as compared to Bajaj because it is incurring lesser expenses and making better profits.
4) Return on capital employed ratio tells us the returns earned on the investment made and the total capital employed. As it is obvious the profit is the motive of the firm, the higher the ratio, the better it is. Hero Honda is earning a better return as compared to its competitor Bajaj because this ratio is more than the ratio of Bajaj.
5) Earning per share ratio is very important from the investor's point of view because they want returns on their investments. This ratio tells us the earnings made per share. Hero Honda, though is not trading on equity, is having better EPS than Bajaj. Bajaj even though has raised loans and has debt equity ratio of 0.93, is not able to give better returns to the equity shareholders. But hero Honda is doing this with very small amount of loan. So it is definitely performing better.
6) Dividend Pay out ratio is another ratio of major concern of the investors. This ratio tells us what part of the Earning per share is actually given to the shareholders as dividend. The more it is, the better it is. In this case Hero Honda is paying less to the shareholders than Bajaj. But seeing the capital structure of Hero Honda it must be paying more to the shareholders because it is not having much of fixed cost capital also. Bajaj even though has debt is paying handsome dividend has comparatively better ratio. On the whole, it may be concluded that profitability of both the companies are satisfactory, but Hero Honda Motors Ltd is more effective in its performance than to Bajaj Auto Ltd.
Limitations And Scope For Further Research :
The information in this study is based on secondary data only.  
The time period of study is limited to only five years i.e. 2005-06 to 2009-10.  
The study is confined to only auto industry i.e. two-wheeler industry, and the size of both the companies were nearly the same.  
The study is confined to only two companies i.e. Hero Honda Motors Ltd (i.e. Hero MotoCorp Ltd) and Bajaj Auto Ltd.  
In spite of these limitations, further studies may be undertaken to confirm the findings by including more sample companies of different segments, size, the countries and the time period.

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