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# Profitability Analysis of Automobile Sector

Accounting

**KEYWORDS :** Profitability Analysis, Ratio, Analysis, ANOVA

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## ABSTRACT

*Profitability is one of the factors reflected in share price. Therefore it is essential to analyse the profitability of the firm to ensure to achieve the one of the goals of the firm. The study is concerned with comparative study of profitability of selected companies from Automobile Industry. The collected data was analyzed with the help of ratio analysis and ANOVA. It analyzed that the profit earned by the firms are adequate and their rate of return to the shareholders are satisfactory. The study reveals that profitability of Maruti Suzuki and Ashok Leyland from selected companies is satisfactory in some aspects and of Lumax and TVS Motors is not satisfactory in certain aspects. We have also applied ANOVA to check the difference between sample and actual population. Therefore the companies should put more efforts to strive for improved productivity and optimal utilization of available resources. Profitability in long run contributes to sustained growth of the company.*

**Introduction**

Every business should earn sufficient profits to survive and grow over a long period of time. Lord Keynes remarked that 'Profit is the engine that drives the business enterprise'. Profitability analysis is the process of identifying the financial profit or loss of the firm by properly establishing relationships between the items of the balance sheet and the profit and loss account. Profitability analysis is an important activity of evaluating financial soundness of the companies. The effective management and control of various components of short term funds has direct impact on profitability

**Automobile sector**

Indian automobile sector has come a long way. India is presently the world's third largest exporter of two-wheelers after China and Japan. The cumulative foreign direct investment (FDI) inflows into the Indian automobile industry during the period April 2000 – August 2014 was recorded at US$ 10,119.68 million, as per data by Department of Industrial Policy and Promotion (DIP). The automobile industry is one of India's most vibrant and growing industries. This industry accounts for 22 per cent of the country's manufacturing gross domestic product (GDP). The auto sector is one of the biggest job creators, both directly and indirectly. The companies selected for the study are O-Max, Maruti Suzuki, TVS Motor Company, Ashok Leyland and Lumax. Brief introduction of the companies selected is as under.

**O-Max**

Established in 1985, the company specializes in sheet metal components, tubular components and machined components. OMAX is an approved supplier for Indian Railways, and holds expertise in manufacturing various railway products. With a turnover of INR 1,300 crore in year 2012, more than 6500+ work force and several international accreditations, feature in the list of top 10 automotive component manufacturers in India.

**Maruti Suzuki**

Maruti Suzuki India Limited commonly referred to as Maruti and formerly known as Maruti Udyog Limited is an automobile manufacturer in India. Maruti Suzuki produces 1.2 million cars annually from its two plants at Gurgaon and Manesar. As of 31 March 2014 Maruti Suzuki has 933 dealerships across 666 towns and cities in all states and union territories of India. It has 30 Express Service Stations on 30 National Highways across 1,436 cities in India. It holds 50% market share.

**TVS Motor Company**

TVS Motor Company is the third largest two-wheeler manufacturer in India and one among the top ten in the world, with annual turnover of more than USD 1.4 billion in 2011-2012, and is the flagship company of the, USD 7.29 billion, TVS Group. The business ranges across automobile component manufacturing, components distribution, manufacturing of powered two-wheelers, computer peripherals, financial services, contract manufacturing services and software development. TVS also competes in the tuk-tuk segment.

**Ashok Leyland**

Ashok Leyland is an Indian automobile manufacturing company based in Chennai, India. Founded in 1948, it is the 2nd largest commercial vehicle manufacturer in India, 4th largest manufacturer of buses in the world and 16th largest manufacturer of trucks globally. Operating six plants, Ashok Leyland also makes spare parts and engines for industrial and marine applications. It sells about 60,000 vehicles and about 7,000 engines annually.

**Lumax**

The most experienced automotive lighting solutions company in South Asia.Today Lumax accounts for **over 60% market share in Indian Automobile Lighting Business**, Lumax has **nine ultra-modern manufacturing plants** in India. During the year 2014-15, Company recorded a sales turnover of Rs. 11,425.59 Million registering a growth of 2.31%. The profit for the year after tax stood at Rs. 165.73 Million registering a growth of 115.26%.

**Objectives of the Study**

The main purpose of the study is to evaluate the profitability of selected Automobile Companies of India through different ratio such as Cash Profit Margin, Net Profit Margin, Return to Net Worth and Net Operating Profit Ratio

**Hypothesis of the Study**

There is no significant difference between the sample units lies for Net Profit (NP) Margin, Net Operating Profit (NOP) Margin, Cash Profit Margin, Return on Net Worth Ratio during the study period of selected Automobile Companies.

**Research Methodology**

This study is based on the data obtained from the Annu-

al reports of these companies for 11 financial years (2004 to 2014) the selected companies for the study are O-Max, Maruti Suzuki, TVS Motor Company, Ashok Leyland and Lumax. The collected data was analyzed with the help of ratio analysis and ANOVA. Ratios help to summaries large quantities of financial data and to make qualitative judgment about the firm's financial performance. ANOVA is used for testing the difference among different groups of data for homogeneity.

**Limitations of the Study**

Research was based on secondary data and historical in nature. The study is limited to eleven years and 5 companies only.

**Results and Discussions**

Different ratios for the selected period ie(2004 to 2014) are calculated and their mean and standard deviation is calculated to find out the results**. (Table-1)**

**Table-1**

| | Year | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | Mean | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NP | TVS motors | 3.27 | 1.63 | 3.48 | 3.08 | 1.98 | 0.82 | 0.96 | 1.69 | 3.55 | 4.64 | 4.8 | 2.72 | 1.39 |
| | O-max | -0.63 | 1.4 | 2.16 | 1.83 | 1.62 | 0.82 | 2.2 | 3.38 | 3.23 | 3.78 | 4.2 | 2.18 | 1.41 |
| | Ashok Leyland | 0.29 | 3.45 | 4.24 | 5.51 | 5.66 | 3.04 | 5.83 | 5.94 | 6.05 | 6.29 | 5.51 | 4.71 | 1.83 |
| | Maruti Suzuki | 6.25 | 5.38 | 4.49 | 6.16 | 8.34 | 5.72 | 9.34 | 10.29 | 9.53 | 7.57 | 5.61 | 7.15 | 1.96 |
| | Lumax | 0.68 | 1.26 | 1.29 | 2.06 | 0.92 | -0.3 | 2.73 | 3.39 | 2.23 | 2.33 | 3.93 | 1.87 | 1.24 |
| Net | TVS motors | 4.43 | 2.32 | 4.44 | 3.7 | 1.63 | 0.78 | 0.96 | 2.03 | 4.51 | 6.04 | 6.58 | 3.40 | 1.99 |
| | O-max | -1.13 | 2.09 | 3.43 | 2.4 | 2.12 | 0.94 | 2.73 | 4.33 | 4.33 | 4.97 | 4.78 | 2.82 | 1.84 |
| | Ashok Leyland | -0.92 | 3.77 | 4.88 | 6.47 | 6.75 | 3.05 | 6.95 | 7.1 | 7.29 | 6.98 | 7.17 | 5.41 | 2.57 |
| | Maruti Suzuki | 8.37 | 6.86 | 6.03 | 8.49 | 11.28 | 7.32 | 11.77 | 13.16 | 11.92 | 9.46 | 6.26 | 9.17 | 2.51 |
| | Lumax | 20.34 | 20.96 | 20.95 | 21.57 | 22.93 | 18.78 | 17.37 | 14.19 | 15.18 | 16.37 | 14.22 | 18.44 | 3.13 |
| Cash Profit | TVS motors | 4.9 | 4.75 | 5.12 | 4.94 | 5.06 | 3.53 | 2.96 | 3.76 | 5.9 | 7.67 | 7.59 | 5.11 | 1.50 |
| | O-max | 2.83 | 4.12 | 3.89 | 4.28 | 4.98 | 3.96 | 4.89 | 6.38 | 5.98 | 6.98 | 7.06 | 5.03 | 1.39 |
| | Ashok Leyland | -0.99 | 4.18 | 6.84 | 7.83 | 7.69 | 5.77 | 7.73 | 7.97 | 8.39 | 9.1 | 8.26 | 6.62 | 2.87 |
| | Maruti Suzuki | 10.93 | 9.57 | 7.61 | 8.89 | 10.78 | 9.13 | 11.79 | 12.08 | 11.82 | 11.63 | 10.74 | 10.45 | 1.45 |
| | Lumax | 3.94 | 4.2 | 3.68 | 5.95 | 6.32 | 5.01 | 5.89 | 6.45 | 6.69 | 6.87 | 10 | 5.91 | 1.77 |
| Return on Net Worth | TVS motors | 18.48 | 9.47 | 21.3 | 19.46 | 10.53 | 4.21 | 4.13 | 8.87 | 17.39 | 20.27 | 23.96 | 14.37 | 7.10 |
| | O-max | -3 | 7.21 | 13.92 | 11.98 | 8.8 | 4.65 | 11.1 | 17.74 | 16.75 | 20.24 | 23.8 | 12.11 | 7.61 |
| | Ashok Leyland | 0.66 | 9.73 | 19.57 | 23.8 | 18.27 | 9.05 | 22.3 | 23.58 | 23.57 | 23.74 | 18.86 | 17.56 | 7.73 |
| | Maruti Suzuki | 13.26 | 12.87 | 10.76 | 16.5 | 21.1 | 13.04 | 20.56 | 22.79 | 21.81 | 19.49 | 15.1 | 17.03 | 4.26 |
| | Lumax | 4.44 | 8.01 | 7.96 | 12.25 | 4.38 | -1.22 | 10.45 | 24.96 | 15.41 | 13.59 | 18.9 | 10.83 | 7.34 |

**Table-2**

| | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| NP Margins | Between Groups | 1815.126 | 4 | 453.782 | 75.501 | .000 |
| | Within Groups | 300.515 | 50 | 6.010 | | |
| | Total | 2115.642 | 54 | | | |
| | | | | | | |
| Net Operating Profit Margin | Between Groups | 215.329 | 4 | 53.832 | 21.311 | .000 |
| | Within Groups | 126.299 | 50 | 2.526 | | |
| | Total | 341.628 | 54 | | | |
| Cash Profit Margins | Between Groups | 219.987 | 4 | 54.997 | 15.574 | .000 |
| | Within Groups | 176.562 | 50 | 3.531 | | |
| | Total | 396.549 | 54 | | | |
| Return on Net Worth | Between Groups | 383.430 | 4 | 95.857 | 1.996 | .110 |
| | Within Groups | 2401.789 | 50 | 48.036 | | |
| | Total | 2785.219 | 54 | | | |

**Net Profit Margins**

This ratio shows the relationship between net profits to sales. The net profit is overall measures of a firm's ability to turn each rupee of sales into profit. From Table 1 it is found that Maruti Suzuki having the highest NP Margin followed by the Ashok Leyland and TVS Motors whereas the risk factor of NP margin it is found that Maruti Suzuki is having highest risky followed by Ashok Leyland and O-Max.

**Net Operating Profit Ratio**

This ratio is designed to give attention on the net profit margin arising from the business process before tax is de-

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ducted. The formula is

to express this ratio is profit before tax (PBT) as a percentage of sales. From Table 1 it is found that Lumax is having the highest NOP Margin followed by the Maruti Suzuki and Ashok Leyland whereas the risk factor of NOP margin it is found that Lumax is having highest risky followed by Ashok and Maruti Suzuki.

**Cash Profit Margins**

The net profits of a firm are affected by the amount/method of depreciation charged. Further, depreciation being non-cash expense, it is better to calculate cash profit ratio. This ratio measures the relationship between cash generated from operations and the net sales. From Table 1 it is found that Maruti Suzuki having the highest CP Margin followed by the Ashok Leyland and Lumax whereas the risk factor of CP margin it is found that Ashok Leyland is having highest risky followed by Lumax and TVS motors.

**Return on Net Worth Ratio**

This ratio is useful as a measure of how well a company is utilizing the shareholders investment to create returns for them and can be used for comparison purposes with competitors in the same industry. From Table 1 it is found that Ashok Leyland having the highest Return on Net Worth followed by the Maruti Suzuki and TVS Motors whereas the risk factor of Return on Net Worth it is found that Ashok Leyland is having highest risky followed by O-Max and Lumax.

Thus we can say that the companies which have more Net Profit Margins, Net Operating Profit Ratio, Cash Profit Margins, Return on Net Worth Ratio as compared to others are more prone to risk than others.

**ANOVA**

From Table 2 it is found that the sample units lies for Net Profit (NP) Margin, Net Operating Profit (NOP), Cash Profit (CP) Margin is significant at 5% level of significance ($p<.05$) which indicates that the Net Profit Margin of selected companies differs significantly. Therefore null hypothesis is rejected. Sample units lie for Return on Net Worth is not highly significant at 5% level of significance ($p>.05$) which indicates that the Return on Net Worth of selected companies not differs significantly. Therefore null hypothesis is accepted.

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