## A Financial Analysis of Selected Automobiles Companies

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#### Abstract

The Indian automobile industry presents a galaxy of varieties and models meeting all possible expectations and globally established industry standards. Some of the leading names echoing in the Indian automobile industry include Maruti Suzuki, Tata Motors, Mahindra and Mahindra, Hyundai Motors, Hero Honda and Hindustan Motors in addition to a number of others. The main objective of this research paper is to make a comparative study of the financial position of the selected automobile companies and it is concluded that the automobile industry growing in all respects and fields. New innovations and new products launch frequently which is a major factor of growth in this sector. There are also various service station networks for the repair and maintenance of your vehicle. Automobile Industry, expected to witness a tremendous growth in the global market.


Keywords: Automobile Industry, Financial Position, Technology, Commercial Vehicles, Passenger Vehicles

## A Financial Analysis of Selected Automobiles Companies

During the early stages of its development, Indian automobile industry heavily depended on foreign technologies. However, over the years, the manufacturers in India have started using their own technology evolved in the native soil. The thriving market place in the country has attracted a number of automobile manufacturers including some of the reputed global leaders to set their foot in the soil looking forward to enhance their profile and prospects to new heights. Following a temporary setback on account of the global economic recession, the Indian automobile market has once again picked up a remarkable momentum witnessing a buoyant sale for the first time in its history in the month of September 2009.

The automobile sector of India is the seventh largest in the world. In a year, the country manufactures about 2.6 million cars making

[^0]up an identifiable chunk in the world's annual production of about 73 million cars in a year. The country is the largest manufacturer of motorcycles and the fifth largest producer of commercial vehicles. Industry experts have visualized an unbelievably huge increase in these figures over the immediate future. The figures published by the Asia Economic Institute indicate that the Indian automobile sector is set to emerge as the global leader by 2012. In the year 2009, India rose to be the fourth largest exporter of automobiles following Japan, South Korea and Thailand. Experts state that in the year 2050, India will top the car volumes of all the nations of the world with about 611 million cars running on its roads.

At present, about 75 percent of India's automobile industry is made up by small cars, with the figure ranking the nation on top of any other country on the globe. Over the next two or three years, the country is expecting the arrival of more than a dozen new brands making compact car models.

## Overview of Performance of the Indian Automobile Industry

## Domestic Sales

The cumulative growth of the Passenger

Vehicles segment during April 2007 - March 2008 was 12.17 percent. Passenger Cars grew by 11.79 percent, Utility Vehicles by 10.57 percent and Multi Purpose Vehicles by 21.39 percent in this period.

The Commercial Vehicles segment grew marginally at 4.07 percent. While Medium \& Heavy Commercial Vehicles declined by 1.66 percent, Light Commercial Vehicles recorded a growth of 12.29 percent.

Three Wheelers sales fell by 9.71 percent with sales of Goods Carriers declining drastically by 20.49 percent and Passenger Carriers declined by 2.13 percent during April- March 2008 compared to the last year.

Two Wheelers registered a negative growth rate of 7.92 percent during this period, with motorcycles and electric two wheelers segments declining by 11.90 percent and 44.93 percent respectively. However, Scooters and Mopeds segment grew by 11.64 percent and 16.63 percent respectively.

## Exports

Automobile Exports registered a growth of 22.30 percent during the current financial year.

The growth was led by two wheelers segment which grew at 32.31 percent. Commercial vehicles and Passenger Vehicles exports grew by 19.10 percent and 9.37 percent respectively. Exports of Three Wheelers segment declined by 1.85 percent.

## Objectives of the study

- To make comparative study of selected companies on the basis of financial positions.
- To make comparative study of solvency position (short term as well as long term).
- To suggest measures to improve financial position in AutomobileCompanies.


## Scope of the study

The scope of the study includes the following things:-
(i) Selected Companies

The companies which we have selected for doing this analysis are following:-

- Ford Motor Company
- Honda Motor Company
- Hyundai Motor Company
- Maruti Suzuki Motor Company
- Tata Motors Company


## (ii) Time period

The time period for which the data have been collected is from January 2001 to January2011.

## (iii)Selected Parameters

The data collected for this time period of all the companies is about its -

- Current Ratio
- Quick Ratio
- Reserves/Funds
- Net Income
- Cash balance
- Current Assets
- Current liabilities \&provisions
- Capital employed
- Debt-equity ratio
- Net worth


## Sources of data collection

According to the needed research of the project; the researcher pursued secondary data collection method. Researcher has used web sites to collect data regarding automobiles companies \& information broacher for secondary data collection and have also used PROWESS software data collection for doing analysis.

## Hypothesis of the study

1. Ho1: There is no significant difference between selected companies regarding their financial position.
2. Ho2: There is no significant difference between selected companies regarding their profitability position.
3. Ho3: There is no significant difference between selected companies regarding their solvency position. (Long term as well as short
term).

## Technique of analysis

Various statistical tools have been applied to analyses the collected data. Such as-

- T-test
- F-test
- Standard deviation
- Mean values
- Variance
- Compound annual growth rate
- Graphs and charts with the help of leading statistical package SPSS.

The analysis and interpretation of the study is carried out by following the chronological order of the parameters mentioned above:

## Table 1. DebtEquity Ratio (in Times)

| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 1.70 | 0.43 | 0.96 | 0.20 | 1.01 |
| 2002 | 1.97 | 0.86 | 0.69 | 0.44 | 1.27 |
| 2003 | 2.23 | 0.63 | 0.54 | 0.29 | 0.94 |
| 2004 | 2.57 | 0.12 | 0.56 | 0.21 | 0.57 |
| 2005 | 2.98 | 0.09 | 0.47 | 0.12 | 0.35 |
| 2006 | 3.73 | 0.00 | 0.27 | 0.09 | 0.61 |
| 2007 | 1.93 | 0.00 | 0.25 | 0.03 | 0.53 |
| 2008 | 2.06 | 0.00 | 0.75 | 0.09 | 0.59 |
| 2009 | - | 0.00 | 1.02 | 0.15 | 0.80 |
| 2010 | - | 0.99 | 0.68 | 0.08 | 1.06 |
| 2011 | 0.73 | - | 0.68 | 10.98 | 1.11 |
| F-test | 24.48 | 0.35 | 12.01 | 5.55 |  |
| T-test | 2.40 | 0.34 | 0.16 | 19.96 |  |
| Mean | 0.67 | 0.45 | 0.38 | 0.12 | 0.80 |
| S.D | 39 | -100 | 0.11 | 0.01 | 0.29 |
| Variance |  | 42.7 | -55.2 | 0.09 |  |
| CAGR |  |  |  | -50 |  |

SOURCE: CMIE, PROWESS SOFTWARE 2011
Graph 1. Debt Equity Ratio (in Times)


The table 1 shows the Debt equity ratio of selected firms. In case of the CAGR in Debt equity ratio inHyundai is maximum which is $42.5 \%$ then
followed by Ford at the rate $39 \%$. The minimum CAGR in Debt equity ratio in Honda, Maruti Suzuki and Tata Motors which is $-100 \%,-55.2 \%$,
$-50 \%$ respectively. The maximum value of mean is 2.40 of Ford \& minimum mean value is 0.16 of Maruti Suzuki. The maximum S.D is 0.67 of Ford \& minimum value is 0.16 ofMaruti Suzuki.

F-test is also applied on the data to know the significant difference. The computed value of MarutiSuzuki is 10.90 . Which is more than the table value at $(1,6)$ degree of freedom which is

Table 2. NetWorth (in Crore)

| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 433.40 | 237.38 | 816.45 | 2912.10 | 3754.12 |
| 2002 | 382.39 | 208.82 | 988.41 | 2642.50 | 3253.78 |
| 2003 | 321.87 | 235.30 | 1142.14 | 2707.30 | 2465.06 |
| 2004 | 267.63 | 308.16 | 1020.93 | 3098.00 | 2597.16 |
| 2005 | 221.10 | 385.04 | 1261.97 | 3591.20 | 3593.60 |
| 2006 | 209.15 | 517.72 | 1529.92 | 4378.80 | 4111.39 |
| 2007 | 308.59 | 671.10 | 2055.02 | 5452.60 | 5537.07 |
| 2008 | 329.20 | 915.30 | 2521.76 | 6853.90 | 6869.75 |
| 2009 | - | 1149.99 | 3032.39 | 8415.40 | 7839.50 |
| 2010 | - | 953.43 | 3051.67 | 9344.90 | 12394.27 |
| 2011 | - | 918.11 | 3285.08 | 11835.10 | 14965.47 |
| F-test | 2.21 | 79.16 | 64.34 | 40.19 | 6.79 |
| T-test | 27.83 | 41.87 | 53.29 | 47.53 | 25.02 |
| Mean | 309.17 | 590.94 | 1882.34 | 5566.53 | 6125.56 |
| S.D | 76.39 | 344.65 | 939.71 | 3139.03 | 4140.84 |
| Variance | 5834.71 | 118783.18 | 883051.78 | 9853482.93 | 17146588.05 |
| CAGR | -40.5 | 162.3 | 160.2 | 154.2 | 107.2 |

Source: cmie, prowess software 2011
Graph 2. Networth (in Crore)

5.99 hence,we reject the hypothesis.. It means that theDebt equity ratio differs significantly in different years. The computed value of Ford, Hyundai, and Tata Motors[0.73, 2.71, 5.55]. Which is less than the table value. It means that theDebt equity ratio do not differs significantly in different years. T-test is also applied on it. The computed value of all the firms is more than the table value at $5 \%$ level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that Hyundai is the most efficient Company in terms of generating Debt equity ratio and Honda is the most inefficient company in terms of generating Debt equity ratio.

The table 2 shows the Net worth of selected firms. In case of the CAGR in Net worth inHonda
is maximum which is $162.3 \%$ then followed by Hyundai, Maruti Suzuki, Tata Motors at the rate $160.2 \%, 154.2 \%, 107.2$ \% respectively. The minimum CAGR in Net worth inFord which is $-40.5 \%$. The maximum value of mean is of 6125.56 Tata Motors \& minimum mean value is 309.7 of Ford. The maximum S.D is 4140.84 of Tata Motors \& minimum value is 76.39 of Ford. F-test is also applied on the data to know the significant difference. The computed value of Honda, Hyundai, Maruti Suzuki, Tata Motors is $79.16,64.34,40.19,6.79$. Which is more than the table value at $(1,6)$ degree of freedom which is 5.99 hence,we reject the hypothesis.. It means that thediffersNet worth significantly in different years. The computed value of Ford is 2.21 . Which is less than the table value. It means that theDebt equity ratio do not differs significantly in different years. T-test is also applied on it. The computed value of all the firms is more than

Table 3. Current Liabilities \& Provisions (inCrore)

| Year | Ford | Honda | Hyundai | MarutiSuzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 |  | 95.47 | 213.34 | 1384.10 | 2239.30 |
| 2002 | 205.12 | 48.04 | 249.52 | 1231.60 | 2639.60 |
| 2003 | 181.56 | 59.35 | 437.62 | 1363.60 | 2742.82 |
| 2004 | 215.54 | 80.64 | 454.24 | 1292.90 | 3585.36 |
| 2005 | 260.57 | 113.62 | 983.55 | 1416.50 | 4689.99 |
| 2006 | 423.80 | 170.39 | 1394.42 | 1509.50 | 6574.41 |
| 2007 | 513.03 | 280.87 | 1586.62 | 1882.50 | 6944.90 |
| 2008 | 534.79 | 340.06 | 2248.72 | 3072.40 | 7732.67 |
| 2009 |  | 558.23 | 3124.62 | 6178.80 | 10633.10 |
| 2010 |  | 555.90 | 4136.67 | 7504.90 | 10676.92 |
| 2011 |  | 914.93 | 4681.70 | 8644.20 | 17372.59 |
| F-test | 42.11 | 405.39 | 132.35 | 13.86 | 116.73 |
| T-test | 32.28 | 57.95 | 31.29 | 29.43 | 53.18 |
| Mean | 155.64 | 146.86 | 887.34 | 1648.10 | 3549.08 |
| S.D | 199.08 | 243.12 | 1421.98 | 2524.05 | 4670.87 |
| Variance | 39632.45 | 59109.17 | 2022038.31 | 6370853.42 | 21817024.25 |
| CAGR | 157.4 | 170.2 | 166.9 | 135.7 | 166.2 |

[^1]Graph 3. Current Liabilities \& Provisions (inCrore)

the table value at $5 \%$ level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that

Honda is the most efficient Company in terms of generating Net worth and Ford is the most inefficient company in terms of generating Net worth. The table 3 shows the Current liabilities \&

|  | Table 4. Reserves /Funds (in Crore) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| $\mathbf{2 0 0 1}$ | -366.60 | -122.62 | 3.91 | 2779.80 | 3498.22 |
| $\mathbf{2 0 0 2}$ | -467.61 | -151.18 | 175.87 | 2510.20 | 2997.88 |
| $\mathbf{2 0 0 3}$ | -528.13 | -124.70 | 329.60 | 2575.00 | 2145.24 |
| $\mathbf{2 0 0 4}$ | -582.37 | -51.84 | 208.39 | 2953.50 | 2277.33 |
| $\mathbf{2 0 0 5}$ | -628.90 | 25.04 | 449.43 | 3446.70 | 3236.77 |
| $\mathbf{2 0 0 6}$ | -640.85 | 157.72 | 717.38 | 4234.30 | 3749.60 |
| $\mathbf{2 0 0 7}$ | -788.41 | 311.10 | 1242.48 | 5308.10 | 5154.20 |
| $\mathbf{2 0 0 8}$ | -767.80 | 555.30 | 1709.22 | 6709.40 | 6484.34 |
| $\mathbf{2 0 0 9}$ |  | 789.99 | 2219.85 | 8270.90 | 7453.96 |
| $\mathbf{2 0 1 0}$ |  | 593.43 | 2239.13 | 9200.40 | 11880.22 |
| $\mathbf{2 0 1 1}$ |  | 558.11 | 2472.54 | 11690.60 | 14394.87 |
| F-test |  |  | 15.96 | 39.90 | 5.86 |
| T-test |  |  | 6.05 | 45.90 | 22.45 |
| Mean | -596.33 | 230.94 | 1069.80 | 5425.35 | 5752.06 |
| S.D | 143.19 | 344.65 | 939.71 | 3135.75 | 4051.26 |
| Variance | 20504.34 | 118783.18 | 883051.78 | 9832927.46 | 16412737.50 |
| CAGR | -100 | -100 | 134.6 | 154 | 101.9 |

provisions of selected firms. In case of the CAGR inCurrent liabilities \& provisions inHonda is maximum which is $170.2 \%$ then followed by Ford, Hyundai, Tata MotorsCurrent liabilities \& provisions at the rate $157.4 \%, 166.9 \%, 166.2 \%$ respectively. The minimum CAGR inCurrent liabilities \& provisions inMaruti Suzuki is 135.7\%

The maximum value of mean is 3549.08 of Tata Motors\& minimum mean value is 146.86 of Honda. The maximum S.D is 4670.87 of Tata Motors \& minimum value is 199.08 of Ford. F-test is also applied on the data to know the significant difference. The computed value of Ford, Honda,

Graph 4. Reserves /Funds(in Crore)


Hyundai, Maruti Suzuki, Tata Motors is 42.11, $405.39,132.35,13.86,116.73$ respectively . Which is more than the table value at $(1,5)$ degree of freedom which is 6.61 hence,hence, we reject the hypothesis.. It means that theCurrent liabilities \& provisionsdiffers significantly in different years. T-test is also applied on it. The computed value of all the firms is more than the table value at $5 \%$ level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference.In an overall conclusion, it can be said thatMaruti Suzuki is the most efficient Company in terms of generatingCurrent liabilities \& provisions andHonda is the most inefficient company in terms of generatingCurrent liabilities \& provisions The table4 shows theReserves / funds of selected firms. In case of the CAGR inReserves /funds in MarutiSzuki is maximum which is $42.5 \%$ then followed by Hyundai, Tata motors at the rate $134.6 \%, 101.9$. The minimum CAGR in Reserves / fundsin Honda, Ford which is $-100 \%$. The maximum value of mean is 5752.06 of Tata Motors \& minimum mean value is 596.33 of Ford. The maximum S.D is 4051.26 of Tata Motors \& minimum value is 143.19 ofFord. F-test is also applied on the data to know the
significant difference. The computed value of Hyundai, Motors Suzuki is $15.96,39.90$. Which is more than the table value at $(1,6)$ degree of freedom which is 5.99 hence,hence, we reject the hypothesis.It means that theReserves / fundsdiffers significantly in different years. The computed value of Tata Motors 5.86Which is less than the table value.So we accept the hypothesis. It means that theReserves /fundsdo not differs significantly in different years. T-test is also applied on it. The computed value of all the firms is more than the table value at $5 \%$ level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that MarutiSzuki is the most efficient Company in terms of generating Reserves / funds and Honda is the most inefficient company in terms of generatingReserves / funds.

The table 5 shows the Capital Employed of selected firms. In case of the CAGR inCapital Employed in MarutiSzuki is maximum which is $158 \%$ then followed by Honda, Hyundai and Tata Motors at the rate $145.7 \%, 127.5 \%, 113.5 \%$ respectively. The minimum CAGR inCapital Employed in Ford i.e.51.3\%.The maximum

## Table 5. Capital Employed(inCrore)

| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 1028.59 | 321.30 | 1579.71 | 2859.80 | 5138.25 |
| 2002 | 1068.69 | 288.45 | 1669.53 | 3023.70 | 4657.17 |
| 2003 | 962.13 | 264.35 | 1759.95 | 2888.10 | 4012.36 |
| 2004 | 856.11 | 308.56 | 1592.47 | 3309.30 | 3753.93 |
| 2005 | 744.94 | 385.04 | 1858.31 | 3874.90 | 4723.22 |
| 2006 | 834.56 | 517.72 | 1948.01 | 4678.80 | 6536.66 |
| 2007 | 771.26 | 671.10 | 2576.97 | 5522.60 | 7791.07 |
| 2008 | 890.77 | 915.30 | 4411.43 | 7461.40 | 8975.54 |
| 2009 |  | 1149.99 | 6137.11 | 8915.70 | 11745.37 |
| 2010 |  | 1051.54 | 6524.59 | 9977.80 | 19510.87 |
| 2011 |  | 1013.36 | 5505.26 | 12255.00 | 27419.07 |
| F-test | 6.41 | 25.31 | 12.51 | 52.89 | 8.12 |
| T-test | 66.39 | 30.65 | 30.26 | 53.92 | 29.29 |
| Mean | 894.63 | 626.06 | 3233.03 | 5887.92 | 9478.50 |
| S.D | 116.82 | 346.35 | 1995.76 | 3279.93 | 7528.29 |
| Variance | 13647.54 | 119955.33 | 3983065.09 | 10757926.47 | 56675107.98 |
| CAGR | 51.3 | 145.7 | 127.5 | 158 | 113.5 |

Source: cmie, prowess software 2011

Graph 5. Capital Employed (inCrore)

value of mean is 9478.50 of Tata Motors \& minimum mean value is 626.06 of Maruti Honda. The maximum S.D is 7528.29 of Tata Motors \& minimum value is 346.35 ofHonda. F-test is also applied on the data to know the significant difference. The computed value of Ford, Honda Hyundai, MarutiSzuki and Tata Motors is 6.41,
$25.31,12.51,52.8$ and 8.12 respectively . Which is more than the table value at $(1,6)$ degree of freedom which is 5.99 hence, hence, we reject the hypothesis.. It means that theCapital Employed differs significantly in different years. T-test is also applied on it. The computed value of all the firms is more than the table value at $5 \%$ level

Table 6. Cash Balance(in Crore)

| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 1}$ | 0.02 | 10.42 | 0.03 | 20.70 | 2.28 |
| $\mathbf{2 0 0 2}$ | 0.02 | 2.66 | 0.10 | 36.50 | 0.96 |
| $\mathbf{2 0 0 3}$ | 0.01 | 0.10 | 0.08 | 43.80 | 37.34 |
| $\mathbf{2 0 0 4}$ | 0.02 | 0.02 | 0.15 | 17.40 | 90.28 |
| $\mathbf{2 0 0 5}$ | 0.02 | 0.02 | 1.55 | 25.50 | 118.85 |
| $\mathbf{2 0 0 6}$ | 0.01 | 0.06 | 0.23 | 61.90 | 119.56 |
| $\mathbf{2 0 0 7}$ | 0.03 | 0.01 | 0.19 | 46.20 | 239.27 |
| $\mathbf{2 0 0 8}$ | 0.02 | 0.01 | 0.24 | 94.60 | 376.50 |
| $\mathbf{2 0 0 9}$ |  | 0.03 | 0.71 | 133.90 | 536.06 |
| $\mathbf{2 0 1 0}$ |  | 0.04 | 2.73 | 212.40 | 293.18 |
| $\mathbf{2 0 1 1}$ |  | 0.02 | 4.53 | 84.30 | 433.90 |
| F-test | 0.15 | 18.03 | 3.36 | 5.11 | 24.46 |
| T-test | $\mathbf{1 6 . 0 3}$ | 4.57 | 6.62 | 14.35 | 6.19 |
| Mean | 0.02 | 1.22 | 0.96 | 70.65 | 204.38 |
| S.D | 0.01 | 3.15 | 1.45 | 58.98 | 184.14 |
| Variance | 0.00 | 9.94 | 2.10 | 3478.41 | 33907.42 |
| CAGR | 16.9 | -57.9 | 82.1 | 97 | 145 |

Source: cmie, prowess software 2011
Graph 6. Cash Balance(in Crore)


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of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that MarutiSzuki is the most efficient CompanyintermsofgeneratingCapitalEmployed and Fordis the most inefficient company in terms of generatingCapital Employed.

The table 6 shows the Cash Balance of selected firms. In case of the CAGR inCash Balance in Tata Motors is maximum which is $145 \%$ then followed by MarutiSzuki, Hyundai and Ford at the rate $97 \%, 82.1 \%, 16.9$ respectively. The minimum CAGR in Cash Balancein Honda which is $57.9 \%$.The maximum value of mean is
204.38 of Tata Motors \& minimum mean value is .02 of Ford. The maximum S.D is 184.14 of Tata Motors \& minimum value is 0.1 ofFord. F-test is also applied on the data to know the significant difference. The computed value of Honda and Tata Motors is $18.03,24.46$. Which is more than the table value at $(1,6)$ degree of freedom which is 5.99 hence, we reject the hypothesis.. It means that theCash Balance differs significantly in different years. The computed value of Ford, Hyundai, and MarutiSzuki is $0.15,3.36,5.11$ respectively. Which is less than the table value. It means that theCash Balance do not differs significantly in different years. T-test is also applied on it. The computed value of all the

Table 7. Net Income(in Crore)

| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 1}$ | 341.11 | 469.95 | 1702.58 | 7266.10 | 7442.79 |
| $\mathbf{2 0 0 2}$ | 787.48 | 521.08 | 2263.38 | 6930.40 | 677.93 |
| $\mathbf{2 0 0 3}$ | 885.58 | 658.95 | 2633.49 | 7305.20 | 7366.53 |
| $\mathbf{2 0 0 4}$ | 872.22 | 755.55 | 3161.11 | 7531.70 | 8989.65 |
| $\mathbf{2 0 0 5}$ | 1136.21 | 1316.00 | 4978.31 | 9336.10 | 13197.30 |
| $\mathbf{2 0 0 6}$ | 1344.79 | 2155.01 | 6607.87 | 11228.10 | 17514.41 |
| $\mathbf{2 0 0 7}$ | 1493.69 | 2521.87 | 7816.54 | 12576.60 | 20825.82 |
| $\mathbf{2 0 0 8}$ | 2220.14 | 3902.63 | 9253.61 | 15250.50 | 27522.88 |
| $\mathbf{2 0 0 9}$ |  | 3957.55 | 10999.28 | 18490.70 | 29312.99 |
| $\mathbf{2 0 1 0}$ |  | 3541.41 | 16818.85 | 21287.70 | 27016.56 |
| $\mathbf{2 0 1 1}$ | 44.38 | 4105.33 | 20494.98 | 29818.90 | 37358.83 |
| F-test | 31.39 | 164.58 | 379.91 | 51.91 | 77.21 |
| T-test | 1135.15 | 2173.19 | 77.01 | 62.56 | 41.57 |
| Mean | 564.74 | 1502.33 | 7884.55 | 13365.64 | 18483.52 |
| S.D | 318927.94 | 2256989.71 | 38020011.95 | 53409708.15 | 113525073.20 |
| Variance | 155.6 | 167 | 169.7 | 157.7 | 162 |
| CAGR |  |  |  | 7308.19 |  |

Source: cmie, prowess software 2011
Graph 7. Net Incomes (in Crore)

firms is more than the table value at 5\% level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that Tata Motors is the most efficient Company in terms of generating Debt equity ratio and Honda is the most inefficient company in terms of generating Debt equity ratio.In an overall conclusion, it can be said that Tata

Motors is the most efficient Company in terms of generating Debt equity ratio and Honda is the most inefficient company in terms of generating Debt equity ratio.

The table 7 shows the Net Income of selected firms. In case of the CAGR inNet Income inHyundai is maximum which is $169.7 \%$ then followed by Honda, Tata Motors, MarutiSzuki at

Table 8. Current Assets(in Times)

| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 1}$ | 188.17 | 124.14 | 389.47 | 1977.40 | 2632.18 |
| $\mathbf{2 0 0 2}$ | 231.66 | 157.29 | 462.94 | 2209.40 | 2653.99 |
| $\mathbf{2 0 0 3}$ | 194.99 | 212.57 | 801.41 | 2074.40 | 2670.29 |
| $\mathbf{2 0 0 4}$ | 217.61 | 190.54 | 922.30 | 2716.70 | 2923.51 |
| $\mathbf{2 0 0 5}$ | 214.46 | 195.85 | 1263.49 | 1941.80 | 2962.41 |
| $\mathbf{2 0 0 6}$ | 364.39 | 460.78 | 1875.61 | 2907.60 | 4910.17 |
| $\mathbf{2 0 0 7}$ | 399.88 | 570.02 | 2446.85 | 3513.30 | 4874.66 |
| $\mathbf{2 0 0 8}$ | 588.41 | 865.24 | 3240.30 | 4317.60 | 5357.61 |
| $\mathbf{2 0 0 9}$ |  | 781.35 | 4760.42 | 6513.90 | 7619.36 |
| $\mathbf{2 0 1 0}$ |  | 717.01 | 6672.87 | 9250.90 | 6840.33 |
| $\mathbf{2 0 1 1}$ |  | 893.96 | 6126.18 | 8636.50 | 10398.68 |
| F-test | 21.28 | 45.73 | 683.27 | 14.73 | 29.45 |
| T-test | 30.82 | 25.39 | 84.38 | 38.10 | 46.26 |
| Mean | 299.95 | 469.89 | 2632.89 | 4187.23 | 4894.84 |
| S.D | 141.22 | 306.75 | 2278.71 | 2709.66 | 2538.21 |
| Variance | 19944.43 | 94093.14 | 5192523.79 | 7342240.67 | 6442508.30 |
| CAGR | 141.9 | 156.1 | 170.6 | 132.3 | 148.8 |

Source: cmie, prowess software 2011
Graph 8. Current Assets(in Times)

the rate $167 \%, 162 \%$ and 157.7 respectively. The minimum CAGR in Net Incomein Ford i.e155.6\%. The maximum value of mean is 18483.52 of Tata Motors \& minimum mean value is 1135.15 of Ford. The maximum S.D is 10654.81of Tata Motors\& minimum value is 564.74 of Ford. F-test is also applied on the data to know the significant difference. The computed value of Ford, Honda, Hyundai, MarutiSzuki and Tata Motors is 44.38, 164.58,379.91, 51.91 and 77.21respectively. Which is more than the table value at $(1,6)$ degree of freedom which is 5.99 hence, hence, we reject the hypothesis.. It means that theNet Incomediffers significantly in different years. T-test is also applied on it. The computed value of all the firms is more than the table value at $5 \%$ level of significance for two tailed test which is 2.262
therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that Hyundai is the most efficient Company in terms of generating Debt equity ratio and Ford is the most inefficient company in terms of generating Debt equity ratio.

The table 8 shows the Current assets of selected firms. In case of the CAGR inCurrent assets inHyundai is maximum which is $170.6 \%$ then followed by Honda, Tata Motors and Ford at the rate $156.1 \%, 148.8 \%, 141.9 \%$ respectively. The minimum CAGR in Current assetsin Maruti Suzuki which is $132.3 \%$.The maximum value of mean is 4894.84 of Tata Motors \& minimum mean value is 299.95 of Ford. The maximum S.D is 2538.21 of Tata motors \& minimum value is

Table 9. Current Ratio(in Times)

| Year | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 0.63 | 3.16 | 1.76 | 1.09 | 0.86 |
| 2002 | 0.88 | 1.17 | 1.88 | 1.25 | 0.80 |
| 2003 | 0.77 | 1.24 | 1.84 | 1.27 | 0.76 |
| 2004 | 0.70 | 1.62 | 2.05 | 1.86 | 0.76 |
| 2005 | 0.54 | 1.34 | 1.29 | 1.42 | 0.62 |
| 2006 | 0.63 | 2.71 | 1.35 | 1.99 | 0.74 |
| 2007 | 0.75 | 2.04 | 1.55 | 1.93 | 0.64 |
| 2008 | 0.91 | 2.58 | 1.44 | 1.48 | 0.56 |
| 2009 |  | 1.42 | 1.53 | 0.96 | 0.59 |
| 2010 |  | 0.52 | 1.37 | 1.24 | 0.41 |
| 2011 | 0.14 | 0.63 | 4.31 | 0.97 | 0.48 |
| F-test | 34.21 | 16.11 | 46.35 | 3.68 | 21.60 |
| T-test | 0.73 | 1.68 | 1.58 | 8.13 | 8.67 |
| Mean | 0.13 | 0.85 | 0.26 | 0.41 | 0.66 |
| S.D | 0.02 | 0.73 | -47.6 | 0.37 | 0.14 |
| Variance | 16.2 | 30.4 |  | 100.8 | 0.02 |
| CAGR |  |  |  | -58.7 |  |

Source: cmie, prowess software 2011
Graph 9. Current Ratio(in Times)

141.22 ofFord. F-test is also applied on the data to know the significant difference. The computed value of Ford, Honda, Hyundai, Maruti Suzuki and Tata Motors are 21.28, 45.73, 683.27,14.73 and 29.45 recspectively. Which is more than the table value at $(1,6)$ degree of freedom which is 5.99 hence,hence, we reject the hypothesis.. It means that theCurrent assetsdiffers significantly in different years. T-test is also applied on it. The
computed value of all the firms is more than the table value at $5 \%$ level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that Hyundai is the most efficient Company in terms of generating Debt equity ratio and MarutiSzuki is the most inefficient company in terms of generating Debt equity ratio.

Table 10. Quick Ratio(in Times)

| YEAR | Ford | Honda | Hyundai | Maruti Suzuki | Tata Motors |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2001 | 0.33 | 1.73 | 0.76 | 0.35 | 0.43 |
| 2002 | 0.36 | 0.57 | 0.94 | 0.53 | 0.35 |
| 2003 | 0.35 | 0.73 | 1.14 | 0.65 | 0.28 |
| 2004 | 0.21 | 0.85 | 1.36 | 1.19 | 0.39 |
| 2005 | 0.23 | 0.52 | 0.72 | 0.78 | 0.35 |
| 2006 | 0.14 | 1.82 | 0.51 | 1.22 | 0.47 |
| 2007 | 0.22 | 1.01 | 0.67 | 1.17 | 0.30 |
| 2008 | 0.44 | 1.66 | 0.35 | 0.78 | 0.23 |
| 2009 | - | 0.20 | 0.55 | 0.16 | 0.33 |
| 2010 | - | 0.12 | 0.56 | 0.47 | 0.22 |
| 2011 | - | 0.12 | 0.63 | 0.16 | 0.29 |
| F-test | 0.37 | 0.50 | 5.21 | 6.78 | 1.61 |
| T-test | 16.43 | 12.37 | 18.86 | 19.82 | 28.76 |
| Mean | 0.29 | 0.85 | 0.74 | 0.68 | 0.33 |
| S D | 0.10 | 0.64 | 0.30 | 0.39 | 0.08 |
| Variance | 0.01 | 0.41 | 0.09 | 0.15 | 0.01 |
| CAGR | 21.4 | 32.1 | -49.4 | 107.2 | -36.9 |

Source: cmie, prowess software 2011

## Graph 10. Quick Ratios(in Times)



The table 9 shows the Current ratio of selected firms. In case of the CAGR in Current ratio inMaruti Suzuki is maximum which is $100.8 \%$ then followed by Honda,Ford and Hyundai at the rate $30.4 \%, 16.2 \%$ and $-47.6 \%$ respectively. The minimum CAGR inCurrent ratio in Tata Motors which is $-58.7 \%$.The maximum value of mean is 1.68 of Honda \& minimum mean value is 0.66 of Tata Motors. The maximum S.D is 0.85 of Honda \& minimum value is 0.14 of Tata Motors. F-test is also applied on the data to know the significant difference. The computed value of Tata Motors is 21.60. Which is more than the table value at $(1,6)$ degree of freedom which is 5.99 hence,hence, we reject the hypothesis.. It means that theCurrent ratio differs significantly in different years. The computed value of Ford, Honda, Hyundai, and MarutiSzuki is $0.14,0.46,4.31,5.68$ respectively. Which is less than the table value. It means that theCurrent ratio do not differs significantly in different years. T-test is also applied on it. The computed value of all the firms is more than the table value at $5 \%$ level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference. In an overall conclusion, it can be said that Hyundai is the most efficient Company in terms of generating Debt equity ratio and Honda is the most inefficient company in terms of generating Debt equity ratio.

The table 10 shows the Quick ratio of selected firms. In case of the CAGR in Quick ratio inMarutiSzuki is maximum which is $107.2 \%$ then followed by Honda, Ford at the rate $32.1 \%$, 21.4\% respectively. The minimum CAGR in Quick ratio in Hyundai which is $-49.4 \%$, -The maximum value of mean is 0.85 of Honda \& minimum mean value is 0.29 of Ford. The maximum S.D is 0.64 of Honda \& minimum value is 0.10 ofFord. F-test is also applied on the data to know the significant difference. The computed value of Maruti Suzuki is 6.78 . Which is more than the
table value at $(1,6)$ degree of freedom which is 5.99 hence,hence, we reject the hypothesis.. It means that theQuick ratio differs significantly in different years. The computed value of Ford, Honda, Hyundai, and Tata Motors are 0.37, 0.50, 5.21 and 1.61 respecctively.Which is less than the table value. It means that theQuick ratio do not differs significantly in different years. T-test is also applied on it. The computed value of all the firms is more than the table value at 5\% level of significance for two tailed test which is 2.262 therefore we reject the hypothesis as there is a significant difference.
In an overall conclusion, it can be said that Maruti Suzuki is the most efficient Company in terms of generating Debt equity ratio and Hyundai is the most inefficient company in terms of generating Debt equity ratio.

## CONCLUSION

Automobile industry includes designs, manufacture, and development and selling of motor vehicles such as two wheeler, three wheelers, cars, truck, busses tractors and other vehicles. However, it does not include industries that are dealing as repair shops, or other motor fuel filling stations. Automobile industry in world keeps on growing and it is one of the most important sectors of the world in terms of revenue collection. It reached to the peak in the year 2007 when the total motor vehicle production touched the 73.3 million milestones. It is in 2009 that the sales dropped a bit and restricted to 61 million. In spite of this considerable downfall in the motor vehicle production, china being able to generate it sales by $45 \%$ in 2009 to 13.6 million units.

In conclusion, the automobile industry growing in all respects and fields. New innovations and new products launch frequently which is a major factor of growth in this sector.

There are also various service station networks for the repair and maintenance of your vehicle. Automobile Industry, expected to witness a tremendous growth in the global market.

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[^1]:    Source: cmie, prowess software 2011

