Financial analysis of Maruti Suzuki, Tata Motors and Mahindra and Mahindra

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Abstract: The financial analysis of a firm is a good mechanism to check the health of a company. Although not foolproof, this analysis provides investors and other interested parties a high level snapshot of the performance of any organization. This report compares the performance of three automobile industries Maruti, Tata Motors and Mahindra and Mahindra over the last five years with respect to different parameters such as debt management, asset management etc and identifies their relative strengths and weaknesses. The objective of this report is to get the team acquainted with financial ratios their relevance in determining the performance of a firm.

Keywords: Maruti, Tata Motors, Mahindra,

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1. Executive Summay

Chosen Industry

Our analysis focuses on the Indian automotive industry, specifically, large-scale manufacturing of automobiles. The automotive industry is inherently interesting: it is capital-intensive, it is extremely competitive, and it is expected to undergo major restructuring in the near future due to globalization and decreasing oil reserves. So huge is the magnitude of the automotive industry that the economic environment of India is a reflection of the industry's environment, and vice versa.

Analysis Methodology

The report begins with the India's economic overview followed by an analysis of the industry's structural characteristics, which provides an understanding of the automotive industry as a whole in its current state. Next, three representative companies of prominent sizes are analyzed and compared. Together these three companies comprise more than two-third of total four-wheeler market in India. They are current market leaders, stable and have been in the automobile industry for many years, and have become increasing active in occupying the international automobile market.

These three companies are analyzed in terms of their financial performance. Where useful, specific statistics have been incorporated in to the analysis including: return on equity, market share, return on sales, common-size income statement analysis, ratio analysis, trend analysis, revenues, net expenses, net income, debt rating etc. The examination as a whole and of some of the major players in the industry provides a good framework within which insightful conclusions can be derived about the current state and future-action required by the automotive industry.

Major Findings and Conclusions

In the conclusion section, we identify and highlight attributes of the best managed company among the three and the reasons why poorly performed company performs so. We then move from specific company attributes to identifying key trends in the automotive industry as a whole. Using Altman Bankruptcy Model, we'll display the stand of the three companies and the reason of their performance on the bankruptcy model. The financial analysis concludes that Maruti Suzuki is best managed among the three and Tata Motors lags in most of the parameters.

2. Economic Analysis

The Indian Economy has seen a stable growth after the Asian Crisis. The opportunities have increased in infrastructure, manufacturing and services sector. The motor vehicle segment is likely to witness a mixed growth though a large number of manufacturers have entered the arena after the opening up of the automotive industry. However the market is still in its infant stage, it is rapidly undergoing transformation by increasing quality standards to ensure becoming globally competitive.

The current trends of the Global Automobile Industry reveal that in the developed countries the Automobile Industries are stagnating as a result of the drooping car markets, whereas the Automobile Industry in the developing nations, such as, India and Brazil, have been consistently registering higher growth rates every passing year for their flourishing domestic automobile markets.

Automobile Industry in India has witnessed a tremendous growth in recent years and is all set to carry on the momentum in the foreseeable future. The current situation requires the automotive manufacturers in India to increase their investments and revamp technologies to meet the global standards. With the arrival of new and existing models, easy availability of finance at relatively low interest rates and discounts offered by the dealers and manufacturers all combined have lead to an increase in the demand for vehicles and strong growth of Indian automotive industry.

The automobile industry comprises of heavy vehicles (trucks, buses, tempos, tractors); passenger cars; and two-wheelers. The major manufacturers in Automobile Industry are:

- Maruti Udyog Ltd.
- General Motors India
- Ford India Ltd.
- Eicher Motors
- Bajaj Auto
- Daewoo Motors India
- Hero Motors
- Hindustan Motors
- Hyundai Motor India Ltd.
- Royal Enfield Motors

- Telco
- TVS Motors
- DC Designs
- Swaraj Mazda Ltd

Porter's 5 Forces Analysis

1. **Threat of New Entrants.** It was in early 1980s, when the Maruti 800 was launched, that we saw the first major "people's car", giving customers an alternative to choose from apart from the Ambassador and Padmini. That car not only exceeded its objective but also brought about a major change in the manufacturing sector as a whole.

   De-licensing in 1991 put the Indian automobile industry on a new growth trajectory, which attracted foreign auto giants to set up their production facilities in the country to take advantage of various benefits it offers. As India opened up for an open economy the Indian automotive Industry in is now working in terms of the dynamics of an open market. Many joint ventures have been set up in India with foreign collaboration. India is working on both technical and financial aspects with these leading global manufacturers. The Government of India is keen to provide a suitable economic and business environment conducive to the success of the established and prospective foreign partnership ventures. $5.7 billion is the investment envisaged in the new vehicles projects

2. **Power of Suppliers.** The automobile supply business is quite fragmented (there are many firms). Many suppliers rely on one or two automakers to buy a majority of their products. If an automaker decided to switch suppliers, it could be devastating to the previous supplier's business. As a result, suppliers are extremely susceptible to the demands and requirements of the automobile manufacturer and hold very little power.

3. **Power of Buyers.** Large middle class population, growing earning power and strong technological capability have been boosting automobile demand for past few years. Despite economic slowdown, the Indian automobile sector is expected to see high growth in coming years, especially in passenger cars segment. Consumers are very price sensitive, they don't have much buying power as they never purchase huge volumes of cars.

The passenger vehicle market, constitutes around 80% of automobile sales, has immense growth potential as passenger car stock stood at around 11 per 1,000 people in 2008. Anticipating the future market potential, the production of passenger vehicle is forecasted to grow at around 10% from 2009-10 to 2012-13.

4. **Availability of Substitutes.** This could be kept under two categories

    1. threat of someone buying a different car

    2. the likelihood of people taking the bus, train or airplane to their destination.

    The higher the cost of operating a vehicle, the more likely people will seek alternative transportation options. The price of petrol/diesel has a large effect on consumers' decisions to buy vehicles. Trucks and sport utility vehicles have higher profit margins. When determining the availability of substitute’s time, money, personal preference and convenience are also considered in the auto travel industry.

5. **Competitive Rivalry.** Highly competitive industries generally earn low returns because the cost of competition is high. The auto industry is considered to be an oligopoly, which helps to minimize the effects of price-based competition. The automakers understand that price-based competition does not necessarily lead to increases in the size of the marketplace; historically they have tried to avoid price-based competition, but more recently the competition has intensified - rebates, preferred financing and long-term warranties have helped to lure in customers, but they also put pressure on the profit margins for vehicle sales.

    The recent launch of Tata Nano has brought about a new revolution in the country’s small car segment. Looking at the good initial response from consumers, many other players in the industry are chalking out their plans to launch cars in this segment in the next few years. A growth of around 14.5% in domestic volume sales of passenger vehicles is foreseen during the forecast period. Other segments, such as two-wheelers, multi-purpose vehicle and light commercial vehicle, are also expected to witness fast growth in coming years. There are immense opportunities for various manufacturers and players of automobile components. With the launch of the Nano Indian auto industry will experience many new important facets. It is now well-accepted that India has emerged as an attractive hub for the manufacturing of compact cars. But with the launch of the Nano, the world will also accept India’s competence in design values and frugal engineering. The world will also accept the capabilities of the component manufacturers who have developed the parts at low prices. India could now start supplying to the automobile plants of the major international car manufacturers abroad.

3. Industry Analysis

The automobile industry in India is among the ten largest in the world with an annual production 2 million units. Such is the robust growth of the automobile industry that the Indian government is aiming to create a $145 billion industry by 2016.

The automotive Industry in India is now working in terms of the dynamics of an open market. Many joint ventures have been set up in India with foreign collaboration, both technical and financial with leading global manufacturers. Also a very large number of joint ventures have been set up in the auto-components sector and the pace is expected to pick up even further. The Government of India is keen to provide a suitable economic and business environment conducive to the success of the established and prospective foreign partnership ventures. $5.7 billion is the investment envisaged in the new vehicles projects.

In the current decade, the recent trend of increasing sophistication and empowerment of the consumer has led automakers to identify new and more specialized markets within saturated markets with diverse customer bases. Another trend is to infiltrate new emerging markets such as Southeast Asia and Latin America, which has further motivated the establishment of production facilities overseas and the establishment of global alliances and commercial strategic partnerships with foreign automakers.

Automobile sector in India is one of the key sectors of the economy in terms of the employment. Directly and indirectly it employs more than 10 million people and if we add the number of people employed in the auto-component and auto ancillary industry then the number goes even higher.

4. Company Analysis

4.1 Comparative Analysis

This section discusses the comparative performance of all the three firms with respect to liquidity, operating performance, leverage, profitability and investment valuation attributes.

Liquidity – In terms of current and quick ratios, Maruti Suzuki emerges the winner. This means that Maruti is best equipped to pay off its short term debt obligations. Tata Motors liquidity measurement ratios are becoming very low which means that it may have difficulty meeting its operations, as well as meeting its short term obligations. In 2008, the liquidity measurement ratios have dropped for all the three organizations. For Maruti, this drop can be attributed to investing the cash surplus into long term investments which reduced its total current asset values.

Operating performance – Over the years, all the firms have improved their inventory management which result resulted in higher turnover ratio. Maruti Suzuki has the best inventory turnover ratio and its well beyond Tata Motors and M & M. In 2007, Maruti witnessed a significant improvement in the inventory turnover ratio. This was because of a initiative taken up by the management which improved the average vehicle delivery time from 1 month to 2.5 weeks. Tata Motors and M&M followed this trend which also benefitted them in terms of improving their efficiency of using the inventory.

However, the total asset ratio was not impressive for all the 3 firms. Tata's acquisition of Jaguar and the modifications to financial reporting procedures of Maruti (in which they changed the depreciation period from 8 to 11 years and consequently lower depreciation value) increased their total asset values. M & M has been the most inefficient in terms of generating revenue from its assets.

Leverage - Maruti Suzuki enjoys a healthy balance of interest coverage since last five years, which indicates its substantial additional debt capacity. However, the interest coverage ratio has declined in the last 2 years which is due to unsecured loans taken by the firm to sustain its operations. M&M, though initially enjoyed hefty ratio of 67 in 2007, couldn't sustain the balance in the later years and this has affected its profitability. Tata Motor's interest coverage ratio has consistently been on the lower side for the last five years. Tata Motors and M & M have high debt ratios and the debt ratios have been increasing in the last 3 to 4 years.

Profitability - The profit margin analysis of Maruti Suzuki and M&M shows that both the companies have a positive investment quality. They utilize their resources and better than Tata Motors do in generating profit and shareholder value. With respect to return of assets, M&M has far underutilized its total assets to make profits as compare to Maruti Suzuki and Tata Motors. Overall, the three companies have employed their total assets fairly well, given that automotive industry is a capital-intensive business. However, M&M by far has been the best in utilizing the average shareholders' equity and thus has yielded better returns to the investors, closely followed by Tata Motors.

Investment valuation - The earning per share of Maruti Suzuki has been increasing with CAGR of 7.38%. Tata Motors and M&M has seen a decline in its EPS with CAGR of -9.43% and -7.74% respectively. Tata Motors and M&M's EPS declined also because of the increase in outstanding shares during the five years period, whereas Maruti Suzuki maintained its dilution.The high P/E ratio of M&M and Maruti Suzuki suggests that investors are expecting higher earnings growth in the future and are paying more for today's earnings in anticipation of future earnings growth. Tata Motor's P/E ratio has been almost consistent and much lower than the other two companies, suggesting that investors are unwilling to show their confidence on its future earnings capabilities.

4.2 Common size Analysis

Common size analysis is one of the techniques used by organizations to identify trends in financial statements. The advantage of deploying common size analysis is that it aids comparisons of balance sheets and income statements over time and across companies. Thus, this technique can be used to compare the performance of *Maruti, Tata Motors and Mahindra & Mahindra.*

FY 2005-2009 was taken up for analysis to compare performances. This is a critical period in terms of global context because it holds two inflection points. FY 2006-07 was a boom time and in FY 2008, the global economy went into recession.

Profit Margins

The performances of the automotive companies under study have reflected these global trends. As you can decipher from the graphs, the average profit margin of these companies in the FY 2007 was 9.91%. In the FY 2009, the average profit margin of these companies was 5.27%. Compare both these values with respect to the total average of 7.9% for all the companies from FY2005-09.

It can also be deciphered from the graph that over the FY 2005-09, M & M and Maruti are operating at a profit margin of 8.5% on an average. Whereas Tata Motors has registered a net profit margin of 6.43% in the corresponding period. From this it can be inferred that Maruti and M & M have positive investment quality. Both these companies utilize their resources better than Tata Motors in generating profit and shareholder value.

Return on Total Assets and Return on Equity

Return on Assets and Return on Equity are two indicators which determine a company's profitability. They exemplify the ability of the company to generate income (available to common stockholders) on assets and equity which they hold.

Data for Return on Assets indicate that the average ROA for these companies over the FY 2005-09 was 19.8%, 17.18% and 18.96% for Maruti, Tata Motors and M & M respectively. Given that the automotive industry is capital intensive, it can be inferred that all these companies have done a good job in generating income out of their total assets.

ROE Data indicate that the average ROE for these companies over the FY 2005-09 was 21.16%, 27.94% and 27.7% was Maruti, Tata Motors and M & M respectively. M & M and Tata Motors have been best in utilizing the average shareholder's equity and thus yielded better returns to the investors.

4.3 Altman's Bankrupcy Prediction model

The Z-score is a formula involving multiple variables that measures the financial health of a company. The formula is used to predict the probability that a firm will go into bankruptcy within two years. Z-scores are used to predict corporate defaults and used as an easy-to-calculate control measure for the financial distress status of companies in academic studies.

The Z-score is a formula involving multipe variables that measures the financial health of a company. The formula may be used to predict the probability that a firm will go into bankruptcy within two years. Z-scores are still used to predict corporate defaults and used as an easy-to-calculate control measure for the financial distress status of companies in academic studies.

The original Z-score formula was as follows: $Z = 1.2T_1 + 1.4T_2 + 3.3T_3 + .6T_4 + .999T_5$.

<u>For TATA motors – Z score calculation is as below</u>

	CA-CL/Total assets	Retained Earnings/Total assets	EBIT/Total assets	Book value/Total Liabilites	Sales /TA	
	T1	T2	T3	T4	T5	Z value
FY08	-0.088	0.17	0.194	0.294	2.348	3.15
FY07	0.184	0.19	0.266	0.195	2.864	4.05
FY06	0.227	0.18	0.273	0.195	2.78	4.02
FY05	-0.003	0.16	0.295	0.375	3.066	4.27
FY04	-0.303	0.13	0.325	0.572	3.1521	4.28

As seen from the table, as TATA has raised debt to finance its Jaguar, Landover take over debt to equity ratio jumped to 80% in FY'08. Further due to economic slowdown and reported losses of 22 billion rupees, relative safety level of TATA motors has declined from Z score of 4.05 to 3.15
Although this might be an aberration coincided with economic slowdown, TATA motors efforts to increase the efficiency of Jaguar and Land rover plants and other measures as mentioned by TATA's shall bring the company back at its original position.

Mahindra & Mahindra

	T1	T2	T3	T4	T5	Z-value

FY'08	0.030528	0.3764217	0.117641	0.04	1.413731	2.13393
FY'07	0.050203	0.41985599	0.167178	0.052304	1.633347	2.563083
FY'06	0.205319	0.42878257	0.219515	0.052106	1.916778	3.127254
FY'05	0.145719	0.41686778	0.230632	0.055031	2.153152	3.3461
FY'04	0.1232	0.35519708	0.235655	0.090352	2.161797	3.316788

As seen financial health of Mahindra and Mahindra has been below par and well below that of TATA motors. Further economic slowdown has brought M&M from safe zone to a grey zone area.

Maruti Suzuki

	2004	**2005**	**2006**	**2007**	**2008**
t1	**-0.03**	**0.12**	**0.21**	**0.18**	**-0.09**
t2	**0.77**	**0.77**	**0.82**	**0.76**	**0.72**
t3	**0.26**	**0.31**	**0.33**	**0.28**	**0.23**
t4	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**
t5	**1.94**	**1.98**	**2.21**	**2.36**	**2.42**
z	**3.39**	**3.68**	**4.1**	**4.01**	**3.68**

As seen, Maruti Suzuki has been as stable as TATA motors over the years also as the debt /equity ration for Maruti is well below the industry average it has less business risk as compared to TATA motors and Mahindra & Mahindra.

Further Maruti Suzuki is in safe zone.

5. Conclusion

Each of the three companies has not only shown significant growth over the years in line with the economic development of the country but also has improved its operational efficiencies. Moreover the economic slowdown has equally hampered the sales of each of the companies.

On a comparative analysis, debt to equity ratio of each of these companies is different with Maruti with least business risk as it has lowest debt to equity ratio whereas TATA motors’ business risk has increased significantly after it had raised debt to finance Jaguar, Land rover takeover.

Further another startling fact which was observed was other recurring income plays significant contribution in the net income of each of these companies. Decline in other recurring income of TATA motors in FY’08 has significantly hampered its net income.

Lastly as per Altman’s bankruptcy model, TATA motors although is in safe area its degree of safety level has declined. Mahindra & Mahindra has already moved in Grey zone and Maruti is still in safe region.