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Equity Analysis of Automobile Industry

Dr.Aashka Thakkar, Shivangi Raval, Minal Munankar*

Assistant Professor, Parul Institute of Management and Research(MBA),Parul University,Vadodara,391760, India
Student, Parul Institute of Management and Research(MBA),Parul University,Vadodara,391760, India
Student, Parul Institute of Management and Research(MBA),Parul University,Vadodara,391760, India

A B S T R A C T

Everybody wants to make a decent return from their investments since financial experts maketheir betsfrom well-earned investment dollars. Though it has a higher degree of risk, thevalue market is considered to be one of the most rewarding investment avenues,notwithstanding the risk. Speculators must do value analysis that prompts them to considerthe risk-return features of the value shares and the companies in which they want to put theirreserve money. As a result, research of the value propositions of firms in the Indianautomotive securities market has been undertaken. The Indian automobile industry is one ofthe largest and most rapidly expanding in the world. Many automakers have started to investinthis business in order to keep up with the growing demand. As a result, the investigation ofthe industry's esteem will assist future money specialists in making educated and reasonabledecisions about their career paths. Inthis studywe have taken eight different companies for analysis.

Keywords: Investment, Automobile Industry, Risk, Return

1. Introduction

The Indian car industry has grown tremendously since its inception in the 1970s. The Indian vehicle industry now offers a dazzling array of models and variations to suit any and all tastes and requirements, all of which match or exceed internationally recognized standards. Other prominent names in the Indian car sector include: Maruti Suzuki, Tata Motors, Mahindra & Mahindra, Hyundai Motors, Hero Honda & Hindustan Motors. For a long time, the Indian car industry was significantly reliant on technology imported from other countries.

Multiple joint ventures between Indian and non-Indian enterprises were formed during the next few years. Several Japanese motorbike and light commercial vehicle manufacturers formed joint partnerships in the 1980s. For local and export requirements, the expansion of automotive component and car production sped up dramatically after this. Experts believe that the Indian government's policies and handling of the automotive sector were unfavourable in the early phases of its growth. However, the Indian government's recent liberalization policies and many tax reliefs have had a considerable positive influence on this sector area. Estimates show that the Indian vehicle sector is increasing at a rate of roughly 18 percent per year due to a variety of causes. Consequently, global automotive companies like Volvo, General Motors, and Ford have begun to look at establishing and expanding their operations in India. India's well-developed transportation infrastructure, like that of many other countries, has played a significant part in the country's economic growth throughout the years. There is no doubt that the Indian motor sector has established itself firmly on the economic landscape. Today, the automotive industry in the nation is able to create a wide variety of vehicles in three basic categories: automobiles, two-wheelers, and heavy trucks.

2. Literature review:

Researchers Dr. Krishnappa and Mr. Vijayakumar (2015) did a research on risk and return analysis of selected stocks in India. When it comes to making investment decisions, most investors use risk and return analyses. As the market became less volatile, long-term investors were able to take advantage of it. Long-term investors can forecast when a stock's price will rise since shares have less volatility than the market and its pricing. Information Technology, Fast Moving Consumer Products, and Pharmaceuticals sectors are more profitable than the banking and automobile industries[1]. Study on Indian Stock Market – A Study of Post and Pre-Recession Period was undertaken by Dr M Muthu Gopalakrishnan and Dr K. V. Ramanathan (2013). Indian stock market price fluctuation is the subject of this investigation by researchers. By assessing market volatility, investors may better gauge their own risk. For the 28-03-2013 Nifty sector index, they used daily opening and closing prices, high and low prices of 31 chosen businesses to examine the volatility. This research sheds light on the link between volatility and the economy before and after the Great Recession [2]. An equity analysis of selected FMCG companies recorded on NSE was conducted by S. Nagarajan and K. Prabhakaran (2018). A range of FMCG companies were compared using the standard deviation, co-proficient variety, and beta. According to their findings, Nestle India Ltd's share price shows a 53% correlation with smart file. It was much cheaper than the prices charged by other businesses in the fast-moving consumer goods sector [3].

3. Research Methodology

We have used descriptive research design and Non-Probability Conveniencesampling method. In this study we have used only secondary data. The secondary data are collected from articles published on various websites (desk research).

Objectives of the Study:

- To analyse risk and return of equity shares of automobile industry in India.
- To compare the risk and return characteristics of selected automobile companies in Indian stock market.
- To find out the extent of the relationship between automobile companies and market index.

Analysis and Discussion:

Data analysis and interpretation in terms of mean return, standard deviation, variance, correlation coefficient, and beta and alpha of the chosen vehicle businesses are covered in this portion of the study report.

TABLE-1 MEANRETURNOFAUTOMOBILECOMPANIES

Sl.No.	NameoftheCompany	MeanReturn
1	Mahindra&MahindraLtd.	-0.0617
2	MarutiSuzukiIndiaLtd.	-0.1362
3	TataMotorsLtd.	-0.0678
4	AshokLeylandLtd.	-0.1096
5	BoschLtd.	-0.0957
6	EicherMotorsLtd.	-0.2227
7	ApolloTyresLtd.	-0.1104
8	HeroMotoCorpLtd.	-0.0488

A compilation and calculation of the data.

Table 1 shows that from 2012 to 2017, all of the enterprises studied had a daily mean return that was negative. Hero MotoCorp Ltd. has the greatest daily average return (0.0488). The daily mean return of Eicher Motors Ltd is -0.2227.

TABLE-2 STANDARDDEVIATIONOFAUTOMOBILECOMPANIES

Sl.No	NameoftheCompany	StandardDeviation
1	Mahindra&MahindraLtd.	1.6569
2	MarutiSuzukiIndiaLtd.	1.7185
3	TataMotorsLtd.	2.2689
4	AshokLeylandLtd.	2.3895
5	BoschLtd.	1.6045
6	EicherMotorsLtd.	2.0426
7	ApolloTyresLtd.	2.5157
8	HeroMotoCorpLtd.	1.5895

A compilation and calculation of the data.

Apollo Tyres Ltd has a standard deviation of 2.5157, while Hero MotoCorp Ltd has a standard deviation of 1.5895, as seen in Table 2. The standard deviation of Ashok Leyland, Tata Motors, and Eicher Motors Ltd is more than 2. Since the standard deviation of return indicates the overall risk, Apollo Tyres Ltd is shown to have the greatest risk among the examined firms.

TABLE-3 VARIANCEOFAUTOMOBILECOMPANIES

Sl.No	NameoftheCompany	Variance
1	Mahindra&MahindraLtd.	2.7455
2	MarutiSuzukiIndiaLtd.	2.9532
3	TataMotorsLtd.	5.1483
4	AshokLeylandLtd.	5.7099
5	BoschLtd.	2.5746
6	EicherMotorsLtd.	4.1723
7	ApolloTyresLtd.	6.3289
8	HeroMotoCorpLtd.	2.5266

Source: Compiled and Calculated.

It is obvious from Table 3 that the variance is noted to be the greatest for Apollo Tyres Ltd (6.3289) followed by Ashok Leyland (5.7099) and Tata Motors (5.1483). (5.1483). It is reported relatively low as 2.5266 for Hero MotoCorp Ltd. So it is discovered that among the chosen firms Hero MotoCorp Ltd has the lowest risk.

TABLE-4 COEFFICIENTOFVARIATIONOFAUTOMOBILECOMPANIES

Sl.No	NameoftheCompany	CoefficientofVariation
1	Mahindra&MahindraLtd.	-2685.3010
2	MarutiSuzukiIndiaLtd.	-1261.0932
3	TataMotorsLtd.	-3345.2011
4	AshokLeylandLtd.	-2179.0472
5	BoschLtd.	-1675.8348
6	EicherMotorsLtd.	-916.9067
7	ApolloTyresLtd.	-2276.8474
8	HeroMotoCorpLtd.	-3255.2384

A compilation and calculation of the data.

Table 4 demonstrates that the Coefficient of Variation is negative for all of the automotive manufacturers, with Eicher Motors Ltd. having a particularly high Coefficient of Variation (-916.9067). At Tata Motors Ltd., the lowest COV is 3345.2011, which is the Coefficient of Variation.

TABLE-5 CORRELATIONCOEFFICIENTOFAUTOMOBILECOMPANIES

Sl.No	NameoftheCompany	CorrelationCoefficient
1	Mahindra&MahindraLtd.	0.6580
2	MarutiSuzukiIndiaLtd.	0.6151
3	TataMotorsLtd.	0.8168
4	AshokLeylandLtd.	0.4917
5	BoschLtd.	0.4160
6	EicherMotorsLtd.	0.4234
7	ApolloTyresLtd.	0.4461
8	Hero MotoCorpLtd.	0.5484

A compilation and calculation of the data.

NIFTY Auto's daily return is correlated with the daily return of each individual vehicle company, as seen in Table 5. The return of the NIFTY Auto index is favourably connected with the return of all vehicle firms. Compared to other companies, Tata Motors Ltd has the greatest correlation at 0.8168, while Bosch Ltd has the lowest correlation at 0.0001. (0.4160).

TABLE-6 BETAANDALPHAOF AUTOMOBILECOMPANIES

Sl.No	NameoftheCompany	Beta	Alpha
1	Mahindra&MahindraLtd.	0.9082	0.0073
2	MarutiSuzukiIndiaLtd.	0.8805	-0.0692
3	TataMotorsLtd.	1.5437	0.0496
4	AshokLeylandLtd.	0.9786	-0.0352
5	BoschLtd.	0.5561	-0.0534
6	EicherMotorsLtd.	0.7204	-0.1679
7	ApolloTyresLtd.	0.9348	-0.0393
8	HeroMotoCorpLtd.	0.7262	0.0064

A compilation and calculation of the data.

Table 6 shows that all vehicle manufacturers had a positive volatility throughout the time period under consideration. The beta value for Tata Motors Ltd. is 1.5437, while Ashok Leyland Ltd. comes in second (0.9786). Among the firms studied, only Bosch Ltd. has an extremely low Beta rating (0.5561). The alpha return indication is also included in the table. Tata Motors Ltd. has the greatest alpha value of 0.0496, whereas Mahindra & Mahindra and Hero MotoCorp all have negative alpha values.

4. FINDINGS AND CONCLUSION:

FINDINGS

- There is no positive daily return for any of the chosen vehicle firms in this research period. Hero MotoCorp Ltd (-0.0488) has the worst daily average return of any company.
- As compared to other firms, Tata Motors Ltd has the greatest correlation coefficient with the NIFTY Auto index, which is 0.8168; Bosch Ltd, on the other hand, has the lowest correlation value, which is 0.0001. (0.4160).
- Tata Motors Ltd has a beta value that is greater than one. ' (1.5437). There is a significant degree of market risk associated with Tata Motors as a result. Tata Motors, on the other hand, has a high alpha value (0.0496). Because of this, it has the potential to bring in a large profit.

- In contrast, every other company has a beta rating below one. As a result, investing in such equities carries less risk. Their alpha values, on the other hand, are lower. Because of this, these shares have a poor rate of return.

CONCLUSION:

Investors must take into account both the company's risk and the company's return potential in order to maximize their returns. That's going to vary from company to company. One of the most significant tools for evaluating the risk and reward of various firms' stocks is equity analysis. This study shows that the Bosch Ltd. equities has a low beta value (0.5561), which means it is less risky and its price volatility is lower than the market's overall volatility. Its alpha value, on the other hand, is very low (-0.0534). Tata Motors Ltd. has a high rate of return when compared to other stocks, but it also has a high beta rating. Consequently, there is increased danger. The beta value of Mahindra & Mahindra Ltd is less than one (0.9082), and it also has a positive alpha value, making it the greatest business to invest in (0.0073).

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