

A STUDY ON RISK AND RETURN ANALYSIS OF SELECTED AUTOMOBILE STOCKS TRADED IN NSE

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ABSTRACT

This study conducts a comprehensive risk and return analysis of major automobile companies listed on the National Stock Exchange (NSE) of India, aiming to assess the risk-return trade-off and identify potential investment opportunities within this vital sector of the Indian economy. This study employs statistical techniques including mean return, standard deviation, Variance and Beta. By examining historical stock price data, the research evaluates the performance and risk profile of each company, providing valuable insights for investors, portfolio managers, and stakeholders to make informed decisions and manage risks effectively in the dynamic automobile industry. The findings contribute to the literature by presenting a comprehensive analysis of risk-return characteristics specific to the Indian automobile sector, facilitating a better understanding of its investment potential.

Key words: Risk Analysis, Return Analysis, Automobile Stocks, Traded in NSE, Risk and Return analysis of auto mobile stocks.

1.INTRODUCTION

RISK IN INVESTMENT

Every investment is characterized by risk and return. For a common man the term 'risk' means a situation in which something is unpleasant or unexpected may happen. In other words, risk is a situation involving exposure to uncertainty in the domain of investment, the term 'risk' has a definite financial meaning. As we are aware, an investor invests his funds in anticipation of

a regular stream of income in the future.

When an investor deploys his funds into some securities, he/she does so after analyzing the expected returns. If the actual return obtained is the same as the expected return, such an investment could be considered to be risk-free.i.e., an investment with no risk. Many investors notice that the stock market is a volatile place to invest their money. The periodic moves can be dramatic, but it is this volatility that also generates the market returns for investors. Volatility is a measure of dispersion around the mean or average return of the security.

For securities, the higher the standard deviation, the greater the dispersion of returns and the higher the risk associated with the investment. Volatility creates risk that is associated with the degree of dispersion of returns around the average. In other words, the greater the chance of lower-than expected return, the riskier the movement. There is a strong relation between volatility and market performance. Volatility tends to decline as the stock market rises and increase when stock market falls. When volatility increases risk increases and returns decrease. Risk is represented by the dispersion of returns and average mean. The greater the dispersion of returns around the mean, the larger will be the drop in the compounded return.

The exact meaning of risk and return are as follows

Risk- "Risk refers to the possibility that actual outcome of an investment will differ from expected outcome. More specifically, most investors are concerned about the actual outcome being less than the expected income".

2. REVIEW OF LITERATURE

Astana, A., & Ahmed, S. S. (2023) For an investor, in deciding on the investment, risk and return plays an important role. The risk and return are interrelated. Usually, if the return is small, the bet will also be low and the higher risk will be associated with a higher return. Investments in stock markets are risky, as was observed in the performances of several assets. Therefore, it is up to investors what level of risk could be a beard to getting the desired return. Thus, risk and return analysis should be performed before making investments for more thoughtful decisions. In the present study, an attempt is made to analyze and compare the risk and return relationship in the context of the Bombay Stock Exchange using the data of selected

sectoral Indices listed in the S&P BSE 500 Index. The results revealed that the Indices with higher returns had low risk.

Nagpal, G., Jadhav, K., & Sinha, A. (2023) Generating the best returns commensurate with the risk appetite is very important for an investor in capital markets. After determining the past returns and risk behavior of a stock and assuming it to be the same in the future, optimal portfolio strategies can be worked out for different investment objectives. While it is known that expected returns and expected risks go hand in hand, there is no existing literature that has examined the exact nature of the relationship between the risks and returns on optimal portfolios in the Indian capital market. Therefore, this study examines the dynamics of risk-return relationship in the case of optimal portfolios designed for different objectives, and also validates the efficient frontier for the Indian capital market. It shows that the improvement in the returns of optimal portfolios happen at a decreasing rate with the increase in the risk appetite of an investor, indicating the nonlinear relationship between risks and returns.

Kumar, V. (2023) Vijay Kumar Risk and return analysis plays a key role in most individual decision making process. Every investor wants to avoid risk and maximize return. In general, risk and return go hand. If an investor wishes to earn higher returns, The investor will only achieve it by accepting a commensurate increase in risk. Based on risk and return analysis, high risk gives high returns with low risk gives to low return. This study is also creating awareness about stocks among the investors to invest in particular company in this FMCG sectors. The risk and return relationship is fundamental concept in not only financial analysis but in every aspect of life. It is necessary that every individual or institutions consider the combined influence of risk and return.

Singh, S. P. (2022) There was a severe impact of outbreak of the pandemic of corona virus (COVID-19) on stock markets across the globe and Indian stock markets are no exception to this. With the outbreak of Covid, stock market indices fell sharply leading to drastic reduction in market capitalization of the listed companies. Though this trend has been reversed after rapid vaccination and some control over the pandemic. This study is an attempt to analyze the risk and return of prominent stocks in Pre-Covid and During Covid period. The researchers have analyzed prominent stocks of FMCG, IT and Pharmaceutical sectors in India in terms of their risk and return on comparative basis in pre-covid and during covid time periods. The

study reveals that FMCG sector offered the highest return in pre Covid period and IT Sector offered highest return in during Covid period. In terms of risk, pharmacy sector had highest risk in pre-covid, and IT sector had highest risk in during Covid period. The study also shows that there is a significant different in the return and risk of most of the stocks in pre-covid and during covid periods.

Kamran, Q. M. (2021) The automobile sector is the dominant participant not in India but a major contributor in the economic system of the world also. Due to its ahead and backward linkages with quite a few key segments of the economy, the enterprise has a sturdy multiplier impact on industrial growth. Over the years, the auto sector has been evolving and assembling up with challenges such as diverse as transitions, consolidations and restructuring and thereby adapting to the new market environment. The automobile sector in India grew to be the fourth greatest in the world with income growing 9.5 per cent year-on-year to 4.02 million devices in 2017. Overall vehicle exports from India grew at 6.86 per cent CAGR between FY13-18. The existing paper measures the economic overall performance of essential chosen vehicle groups for the duration of 5 years from 2013-2017 by using the usage of ratio analysis. The aim of this paper is to consider and evaluate the economic overall performance of chosen three agencies to fee their economic performances.

Krishnaprabha, S., & Piruthous, S. J (2021) An Investor within the inventory market is probably inquisitive about analyzing the stock fee actions. Fees in the stock marketplace differ due to non-stop buying and promoting within the marketplace. There are basically methods applied in analyzing the percentage price actions. They may be critical technique and technical method. Both techniques have the equal objective of purchasing at decrease charge and selling at a higher fee to advantage suitable cross again on funding. The purpose of this check is to evaluate technical evaluation from the equity marketplace in Electronics sector and to find out its usefulness in Indian stock market.

3. OBJECTIVES OF THE STUDY

- To calculate the average return on selected auto mobile stocks i.e; HERO MOTORCROP LIMITED, MARUTI SUZUKI INDIA LIMITED, TATA MOTORS LIMITED.
- To evaluate the stocks in terms of Standard Deviation, Variance, & Beta.
- To suggest the investors about auto mobile stocks for their investment based on risk and return calculations.
- To know about risk and return analysis for an investor.
- The analysis can provide insights into industry trends, cyclicity, and the impact of macroeconomic factors on the industry's performance.

4. METHODOLOGY

The study is totally conducted through secondary data sources only. The data is obtained from NSE websites, Articles, Journals, News Papers, related to sectors and stock market and Financial Reports which released by the companies etc.

5. DATA ANALYSIS AND INTERPRETATION

TABLE 5.1

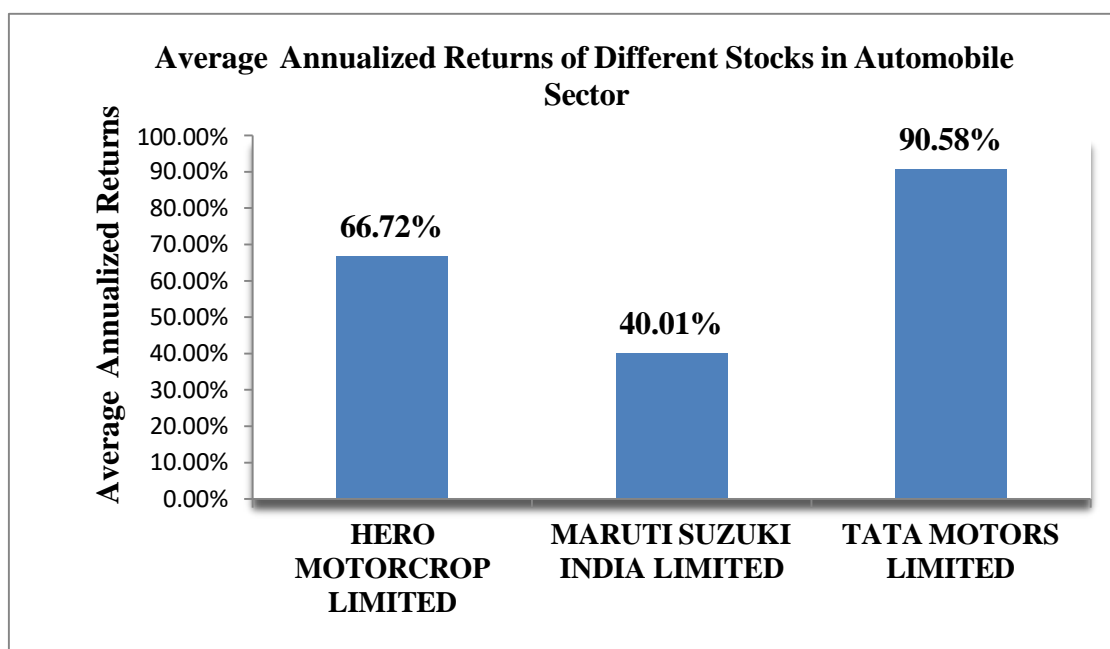
STATEMENT SHOWING AVERAGE ANNUALIZED RETURN OF DIFFERENT STOCKS IN AUTOMOBILE SECTOR IN NSE

| AUTO MOBILE STOCKS | AVERAGE ANNUALIZED RETURN |
|-----------------------------|---------------------------|
| HERO MOTORCROP LIMITED | 66.724% |
| MARUTI SUZUKI INDIA LIMITED | 40.014% |
| TATA MOTORS LIMITED | 90.578% |

ANALYSIS

The above table shows that the annualized returns of different automobile stocks for the year 2023-24. The above were HERO MOTORCROP LIMITED, MARUTI SUZUKI INDIA LIMITED and TATA MOTORS LIMITED while their annualized returns were as 66.724%, 40.014% and 90.578%.

FIGURE NO: 5.1



INTERPRETATION

From the above graph it has been observed that the returns of TATA MOTORS LIMITED tends to be highest i.e.90.58% and followed by HERO MOTORCROP LIMITED and MARUTI SUZUKI INDIA LIMITED i.e. 66.72% and 40.01% while least annualized returns was MARUTI SUZUKI INDIA LIMITED i.e. 40.01%.

TABLE 5.2

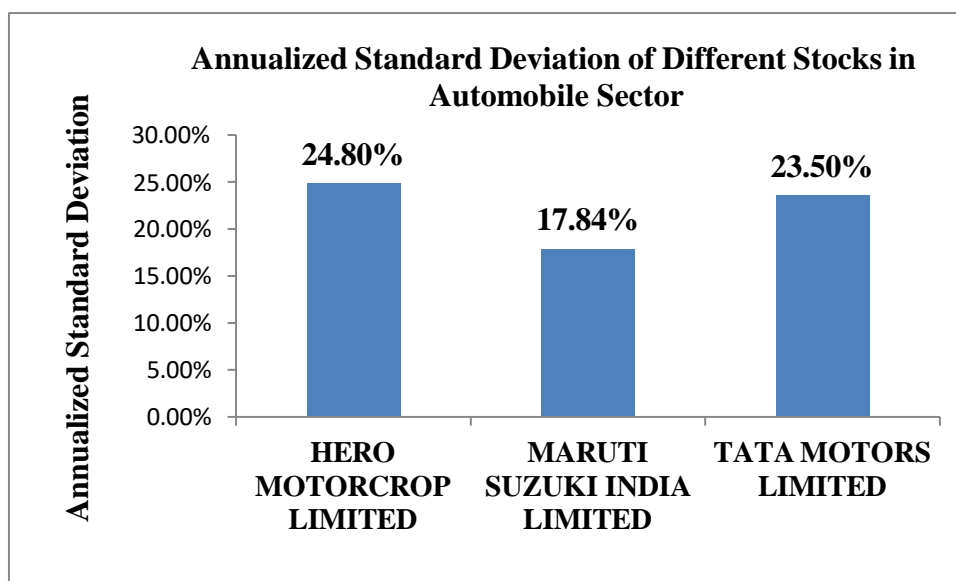
STATEMENT SHOWING ANNUALIZED STANDARD DEVIATION OF DIFFERENT STOCKS IN AUTOMOBILE SECTOR IN NSE

| AUTO MOBILE STOCKS | ANNUALIZED STANDARD DEVIATION |
|-----------------------------|-------------------------------|
| HERO MOTORCROP LIMITED | 24.801% |
| MARUTI SUZUKI INDIA LIMITED | 17.844 % |
| TATA MOTORS LIMITED | 23.495 % |

ANALYSIS

The above table shows that the annualized standard deviation of different automobile stocks for the year 2023-24. The above were HERO MOTORCROP LIMITED, MARUTI SUZUKI INDIA LIMITED and TATA MOTORS LIMITED while their annualized returns were as 24.804 %, 17.844 % and 23.495 %.

FIGURE NO: 5.2



INTERPRETATION

From the above graph it has been observed that the returns of tends to be highest HERO MOTORCROP LIMITED i.e.24.80 % and followed by TATA MOTORS LIMITED and MARUTI SUZUKI INDIA LIMITED i.e. 23.50 % and 17.84 % while least annualized standard deviation was MARUTI SUZUKI INDIA LIMITED i.e. 17.84%.

TABLE 5.3

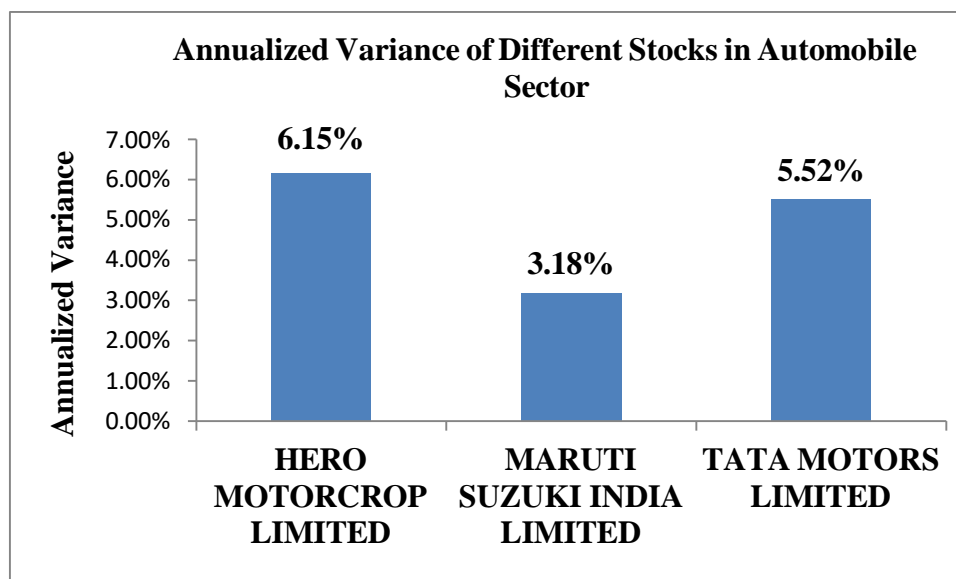
STATEMENT SHOWING ANNUALIZED VARIANCE OF DIFFERENT STOCKS IN AUTOMOBILE SECTOR IN NSE

| AUTO MOBILE STOCKS | ANNUALIZED VARIANCE |
|-----------------------------|---------------------|
| HERO MOTORCROP LIMITED | 6.151 % |
| MARUTI SUZUKI INDIA LIMITED | 3.184 % |
| TATA MOTORS LIMITED | 5.520 % |

ANALYSIS

The above table shows that the annualized variance of different automobile stocks for the year 2023-24. The above were HERO MOTORCROP LIMITED, MARUTI SUZUKI INDIA LIMITED and TATA MOTORS LIMITED while their annualized returns were as 6.151%, 3.184 % and 5.520 %.

FIGURE NO: 5.3



INTERPRETATION

From the above graph it has been observed that the returns of tends to be highest HERO MOTORCROP LIMITED i.e. 6.15 % and followed by TATA MOTORS LIMITED and MARUTI SUZUKI INDIA LIMITED i.e. 5.52 % and 3.18 % while least annualized variance was MARUTI SUZUKI INDIA LIMITED i.e. 3.18 %.

TABLE 5.4

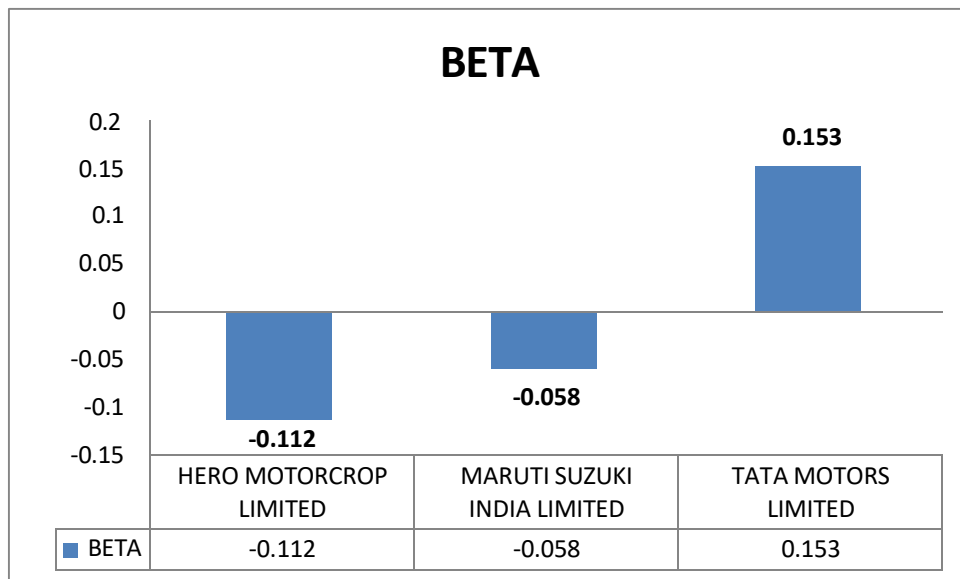
STATEMENT SHOWING BETA OF DIFFERENT STOCKS IN AUTOMOBILE SECTOR IN NSE

| AUTO MOBILE STOCKS | BETA |
|-----------------------------|--------|
| HERO MOTORCROP LIMITED | -0.112 |
| MARUTI SUZUKI INDIA LIMITED | -0.058 |
| TATA MOTORS LIMITED | 0.153 |

ANALYSIS

The above table shows that the beta of different automobile stocks for the year 2023-24. The above were HERO MOTORCROP LIMITED, MARUTI SUZUKI INDIA LIMITED and TATA MOTORS LIMITED while their annualized returns were as -0.112, -0.058 and 0.153 .

FIGURE NO: 5.4



INTERPRETATION

From the above graph it has been observed that the returns of tends to be highest TATA MOTORS LIMITED i.e. 0.153 and followed by HERO MOTORCROP LIMITED and MARUTI SUZUKI INDIA LIMITED i.e. -0.112 and -0.058 while least beta was by HERO MOTORCROP LIMITED i.e. -0.11

6. FINDINGS

As for as returns of selected auto mobile stocks Tata Motors Limited possess highest return and Maruti Suzuki India limited has lowest Annualized returns as compared to other Auto Mobile stock like Hero Motorcrop Limited.

When the Auto Mobile stocks taken into consideration with respect to Standard Deviation Hero Motorcrop Limited has the highest Standard Deviation and Maruti Suzuki India Limited has the lowest Standard Deviation as compared other stock like Tata Motors LTD.

When the selected Auto Mobile stocks taken into consideration with respect to Variance of Hero Motorcrop Limited has highest and Maruti Suzuki India Limited has the lowest as Variance compared other stock like Tata Motors Limited. Hence, Hero Motorcrop limited is highly volatile Variance when is considered.

The Beta of HERO MOTORCROP LIMITED, MARUTI SUZUKI INDIA LIMITED, TATA MOTORS LIMITED were as -0.112 , -0.058 and 0.153. It indicates that Beta is lies between both +1% and -1%. It represents that market indices return causes both +1% and -1% in stock return. It indicates that the stock moves in fewer tandems with the market. Hence, the investment is neutral.

7. CONCLUSION

The primarily motive of study of risk and return analysis in the stock market particularly in automobile sector to know the volatility of stock market in this sector, this involved in investing and also to know where to invest with less risk and maximum returns. The risk and return analysis helps to establish the idea of linkage between stock market and investors activities, because the overall markets depend upon the investments involved in the market.

However, from the data analysis and interception it can be concluded that the investor should

analyze before investing in an automobile stocks since the risk involved depends upon the returns of the stocks and market fluctuations involved further. The investor must have an updated knowledge before the investment is made in the particular sector. Other factors like environment, global factors, company's performances etc. are also taken into the consideration before the investment is made.

Before buying a security, it's better to find out everything about the company (internal and external environment), it's earnings and possibilities for growth.

Investor should up to date in the investment sector and daily news regarding to the stock market investments etc.

8. REFERENCES

WEBSITES

- www.moneycontrol.com
- www.IBEF.org
- www.screener.com
- www.nse.com

NEWS PAPERS

- Economic Times
- Business standard

MAGAZINES

- Business World
- Business India