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A STUDY ON MEAN VARIANCE ANALYSIS AT INDIA BULLS

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ABSTRACT

The main objective of portfolio management is to diversify the risk. A combination of securities held together in beneficial proportion will lead to higher returns and thus diversify the risk. In the present study 4 securities viz Maruti, ACC, ICICI, Reliance were taken. Individual returns and variances were caluculated. Portfolios with securities were constructed. Their portfolio risk and return were determined and optimal portfolio was assessed. The study reveals that risk is diversified in all the portfolio with securities ICICI and Maruti optimum returns.

I. INTRODUCTION

Security analysis is the analysis of tradable financial instruments called securities. These can be classified into debt securities, equities, or some hybrid of the two. More broadly, futures contracts and tradable credit derivatives are sometimes included. Security analysis is typically divided into fundamental analysis, which relies upon the examination of fundamental business factors such as financial statements, and technical analysis, which focuses upon price trends and momentum. Quantitative analysis may use indicators from both areas.

II. NEED FOR THE STUDY

Portfolio management or investment management helps investors in effective and efficient management of their investment to achieve this goal. The rapid growth of capital markets in India has open-up new investment avenues for investors.

The stock markets have become attractive investment options for the common man. But the need is to be able to manage investments effectively and efficiently to keep maximum returns with minimum risk.

Hence this study on “Mean Variance Analysis” to examine the role process and merits of effective investment management and decision.

III. OBJECTIVES OF THE STUDY:

1. To examine the risk & returns of the selected stocks.
2. To analyse the correlation between the selected stocks.
3. To determine the proportion of stocks in the constructed portfolio.
4. To explore the optimum portfolio based on portfolio risk and portfolio return.

IV. SCOPE OF THE STUDY:

This study covers the Markowitz model. The study covers the calculation of correlations between the different securities to find out at what percentage funds should be invested among the companies in the

portfolio. Also, the study includes the calculation of individual Standard Deviation of securities and ends at the calculation of weights of individual securities involved in the portfolio. These percentages help in allocating the funds available for investment based on risky portfolio.

The scope of the study is limited to:

1. Maruti
2. ACC
3. ICICI
4. Reliance

V. RESEARCH METHODOLOGY:

SOURCES OF DATA

The study is based purely on secondary data. However, some primary information has been collected from employees of organization.

Primary data: The data is gathered by the interaction with the employees of INDIABULLS.

Secondary data: The information gathered from already available sources such as internet, books, financial reports this project work has been done using some of the websites and financial details of the company.

TOOLS AND TECHNIQUES

1. Portfolio Risk

Portfolio risk refers to the potential loss or volatility of a collection of investments, known as a portfolio. It is a measure of the overall risk of a portfolio, taking into account the risks of individual assets, such as stocks, bonds, or other securities, as well as the potential interactions between them.

VI. REVIEW OF LITERATURE

AUTHORS: MICHAEL STAMOS AND THOMAS ZIMMERER

The authors revisit asset allocation strategies that aim at actively managing the volatility of multi-asset-class portfolios in response to time-varying volatility forecasts. They use the historical data of 29 major market indexes covering global equities, bonds, currencies, and commodities and apply a common set of exponentially weighted volatility estimates to them. The authors find that active volatility management is beneficial for most of these asset classes and for mixed asset portfolios, leading to more consistent wealth accumulation over time. In cross-validations, they find that fast-moving volatility forecasts seem beneficial because they have better forecasting accuracy and produce economic gains in terms of risk accuracy and performance. The authors also find significant reduction of tail risks for most assets, except for bonds, where the reduction is minor.

CRINA O. TARASI, RUTH N. BOLTON, MICHAEL D. HUTT, BETH A. WALKER

Marketing managers can increase shareholder value by structuring a customer portfolio to reduce the vulnerability and volatility of cash flows. This article demonstrates how financial portfolio theory provides an organizing framework for (1) diagnosing the variability in a customer portfolio, (2) assessing the complementarity/similarity of market segments, (3) exploring market segment weights in an optimized portfolio, and (4) isolating the reward on variability that individual customers or segments provide. Using a seven-year series of customer data from a large business-to-business firm, the authors demonstrate how market segments can be characterized in terms of risk and return. Next, they identify the firm's efficient portfolio and test it against (1) its current portfolio and (2) a hypothetical profit maximization portfolio. Then, using forward- and back-testing, the authors show that the efficient portfolio has consistently lower variability than the existing customer mix and the profit maximization portfolio.

DR. NALLA BALA KALYAN A portfolio is an assortment of protections. Since it is infrequently alluring to contribute the whole assets of an individual or a foundation in solitary security, it is basic that each security is seen in the portfolio setting. Consequently, it appears to be sensible that the normal return of every one of the securities contained in the portfolio. Portfolio investigation thinks about the assurance of future danger and returns in holding different mixes of individual protections. Security Analysis in both customary sense and current sense includes the projection of future profit, or income streams, a figure of the offer cost later on, and assessing the natural estimation of security dependent on the conjecture of income or profits. The current examination is conscious to inspect the Risk and Return Analysis of Selected Stocks in India. Danger might be characterized as the opportunity of varieties in real return. Return is characterized as the addition in the estimation of speculation. The profit for a venture portfolio causes a speculator to assess the monetary presentation of the venture.

NEELAM KAPOOR A Portfolio Management refers to the science of analyzing the strengths, weaknesses, project, what is the goals of project, what is the resources of project to be implemented and opportunities and threats for performing wide range of activities related to the one’s portfolio for maximizing the return at a given risk. Portfolio Management process start with raw inputs such as what is the how much capital is required for such project. After analyzing the factors investor evaluate the project or security in financial term such as Return of portfolio, risk of portfolio etc., after that the organization according to organization strategy will chose the security or project.

VII. DATA ANALYSIS AND INTERPRETATION

PORTFOLIO RETURNS & RISKS OF THE SELECTED STOCKS

Portfolio	Script A	Script B	Portfolio Return	Portfolio Risk
1	**Maruti**	**ACC**	6.91%	33.97%
2	**Maruti**	**ICICI**	33.16%	37.24%

3	**Maruti**	**Reliance**	2.2%	50.31%
4	**ACC**	**ICICI**	18.18%	30.08%
5	**ACC**	**Reliance**	13.06%	44.59%
6	**ICICI**	**7Reliance**	13.46%	42.42%

INTERPRETATION: From the above table, it is evident that portfolio return is higest for portfolio-2 followed by portfolio-4, portfolio-6. Also it is withnessed that the portfolio risk is least for portfolio-4, followed by portfolio-1 and portfolio-2.

VIII. FINDINGS

- Individual returns on the selected stocks including Maruti, ACC, ICICI, Reliance are 33.35%, 13.91%, 21.04%, 8.63% respectively.
- Individual risks on the selected stocks including Maruti, ACC, ICICI, Reliance are 114.50%, 44.98%, 37.85%, 54.82% respectively.
- Correlation between all the companies is positive which means all the combinations of portfolios are at good position to gain in future.

IX. SUGGESTIONS

6.Investors are advised to invest in Portfolios of Maruti & ICICI (33.16%) followed by ACC & ICICI (18.18%) and ICICI & Reliance (33.08%) which have given the maximum returns.

7.Risk is much diversified in portfolios, ACC & ICICI, Maruti & ACC.

8.Shuffle the portfolio and replace the slow-moving sector with active ones.

9.Investors should never react to sudden rise or fall in stock market index.

X. 5.3 CONCLUSION

Portfolio management is a process of encompassing many activities of investment assets and securities. It is a dynamic and flexible concept and involves regular and systematic analysis, judgment, and action. A combination of securities held together will give a beneficial result if they grouped in a manner to secure higher returns after taking into consideration the risk elements.

The main objective of portfolio management is to diversify the risk. Investors always aim at maximizing the returns by minimizing the risk.The current study emphasizes on the diversification of risk.It is observed that at individual level, each scrip is associated with high risk but when portfolio is constructed, the risk is diversified. Optimum portfolio is that portfolio where risk is diversified and gives maximum returns.

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