

A STUDY ON RISK ASSESSMENT STRATEGIES IN PORTFOLIO MANAGEMENT: ANALYZING THE ROLE OF SECURITY ANALYSIS IN MITIGATING INVESTMENT RISKS WITH REFERENCE TO KARVY

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ABSTRACT

An essential part of managing a portfolio is doing security analyses, which include looking at specific financial instruments like stocks, bonds, and other investments to see whether they are a good fit. Methods for determining a security's worth, risk, and possible return are examined in this research, which covers basic and technical analysis. In contrast to technical analysis, which centres on price patterns and trading volumes, fundamental analysis looks at a company's profits, growth potential, position in the industry, and financial statements.

Finding out how security analysis helps with building and managing investment portfolios with optimum asset allocation, diversification, and risk management is the main goal of the study. To compare stocks and gauge the efficacy of a portfolio, analysts utilise key performance indicators including volatility, price-to-earnings (P/E) ratio, beta, and earnings per share (EPS).

According to the research, a balanced portfolio that takes into account an investor's risk tolerance and financial objectives requires precise securities analysis. Achieving success in long-term investments requires this method, since it improves decision-making, maximises returns, and minimises risk.

I. INTRODUCTION

Security analysis is the analysis of tradeable financial instruments called securities. These can be classified into debt securities, equities, or some hybrid of the two. More broadly, futures contracts and tradeable 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.

Security analysis is about valuing the assets, debt, warrants, and equity of companies from the perspective of outside investors using publicly available information. The security analyst must have a thorough understanding of financial statements, which are an important source of this information. As such, the ability to value equity securities requires cross-disciplinary knowledge in both finance and financial accounting.

While there is much overlap between the analytical tools used in security analysis and those used in corporate finance, security analysis tends to take the perspective of potential investors, whereas corporate finance tends to take an inside perspective such as that of a corporate financial manager.

Portfolio management and investment decision as a concept came to be familiar with the conclusion of second world war when thing can be in the stock market can be liberally ruined the fortune of individual, companies ,even government 's it was then discovered that the investing in various scripts instead of putting all the money in a single securities yielded weather return with low risk percentage, it goes to the credit of **HARYMERKOWITZ**, 1991 noble laurelled to have pioneered the concept of combining high yielded securities with these low but steady yielding securities to achieve optimum correlation coefficient of shares.

Portfolio management refers to the management of portfolio's for others by professional investment managers it refers to the management of an individual investor's portfolio by professionally qualified person ranging from merchant banker to specified portfolio company.

Definition by SEBI:

A portfolio management is the total holdings of securities belonging to any person.

Portfolio is a combination of securities that have returns and risk characteristics of their own; portfolio may not take on the aggregate characteristics of their individual parts.

Thus a portfolio is a combination of various assets and /or instruments of investments.

Combination may have different features of risk and return separate from those of the components. The portfolio is also built up of the wealth or income of the investor over a period of time with a view to suit its return or risk preference to that of the portfolio that he holds. The portfolio analysis is thus an analysis of individual securities in the portfolio and changes that may take place in combination with other securities due to interaction among them and impact of each on others.

Security analysis is only a tool for efficient portfolio management; both of them together and cannot be dissociated. Portfolios are combination of assets held by the investors.

These combinations may be various assets classed like equity and debt or of different issues like Govt. bonds and corporate debts are of various instruments like discount bonds, debentures and blue chip equity or scripts of emerging Blue chip companies.

Portfolio analysis includes portfolio construction, selection of securities, revision of portfolio evaluation and monitoring of the performance of the portfolio. All these are part of the portfolio management.

The *traditional portfolio* theory aims at the selection of such securities that would fit in with the asset preferences, needs and choices of the investors. Thus, a retired executive invests in fixed income securities for a regular and fixed return. A business executive or a young aggressive investor on the other hand invests in and owns companies and in risky ventures.

The *modern portfolio* theory postulates that maximization of returns and minimization of risk will yield optimal returns and the choice and attitudes of investors are only a starting point for investment decisions and that vigorous risk returns analysis is necessary for optimization of returns. Portfolio analysis includes portfolio construction, selection of securities, and revision of portfolio evaluation and monitoring of the performance of the portfolio. All these are part of the portfolio management.

NEED & IMPORTANCE OF STUDY

Portfolio management or investment helps investors in effective and efficient management of their investment to achieve this goal. The rapid growth of capital markets in India has opened 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 effectively and efficiently manage investments in order to keep maximum returns with minimum risk.

Hence this study on **"PORTFOLIO MANAGEMENT"** to examine the role, process and merits of effective investment management and decision.

SCOPE OF STUDY:

This study covers the Markowitz model. The study covers the calculation of correlations between the different securities in order 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 portfolios.

OBJECTIVES:

- ❖ To study the investment decision process.
- ❖ To analysis the risk return characteristics of sample scripts.
- ❖ Ascertain portfolio weights.
- ❖ To construct an effective portfolio which offers the maximum return for minimum risk

METHODOLOGY:

Primary source

Information gathered from interacting with employees in the organization. And the data from the textbooks and other magazines.

Secondary source

Daily prices of scripts from news papers

LIMITATION:

- ❖ Construction of Portfolio is restricted to two companies instruments that are negotiable and fungible. based on Markowitz model.
- ❖ Very few and randomly selected scripts / companies are options or other options, limited partnership analyzed from BSE listings. units, and various other formal investment
- ❖ Data collection was strictly confined to secondary instruments those are negotiable and fungible source. No primary data is associated with the project.
- ❖ Detailed study of the topic was not possible due to A portfolio is a collection of securities since it is limited size of the project. really desirable to invest the entire funds of an individual or an institution or a single security, it is essential that every security be viewed in a portfolio context. Thus it seems logical that the expected return of the portfolio. Portfolio analysis considers the determine of future risk and return in holding various blends of individual securities
- ❖ There was a constraint with regard to time allocation individual instruments those are negotiable and fungible for the research study i.e. for a period of two months.
- ❖ Only two samples have been selected for constructing a portfolio.
- ❖ Share prices of scripts of 5 years period was taken.
- ❖ Duration Period 2 months
- ❖ Sample size : 5 years
- ❖ To ascertain risk, return and weights.

II. LITERATURE REVIEW

A **security** is a fungible, negotiable instrument representing financial value. Securities are broadly categorized into debt securities (such as banknotes, bonds and debentures) and equity securities, e.g., common stocks; and derivative

contracts, such as forwards, futures, options and swaps. The company or other entity issuing the security is called the issuer. A country's regulatory structure determines what qualifies as a security. For example, private investment pools may have some features of securities, but they may not be registered or regulated as such if they meet various restrictions.

Securities may be represented by a certificate or, more typically, "non-certificated", that is in electronic or "book entry" only form. Certificates may be *bearer*, meaning they entitle the holder to rights under the security merely by holding the security, or *registered*, meaning they entitle the holder to rights only if he or she appears on a security register maintained by the issuer or an intermediary. They include shares of corporate stock or mutual funds, bonds issued by corporations or governmental agencies, stock options or other options, limited partnership units, and various other formal investment

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PORTFOLIO:

A portfolio is a collection of securities since it is really desirable to invest the entire funds of an individual or an institution or a single security, it is essential that every security be viewed in a portfolio context. Thus it seems logical that the expected return of the portfolio. Portfolio analysis considers the determine of future risk and return in holding various blends of individual securities

Portfolio expected return is a weighted average of the expected return of the individual securities but portfolio variance, in short contrast, can be something reduced portfolio risk is because risk depends greatly on the co-variance among returns of individual securities. Portfolios, which are combination of securities,

may or may not take on the aggregate characteristics of their individual parts.

Since portfolios expected return is a weighted average of the expected return of its securities, the contribution of each security the portfolio's expected returns depends on its expected returns and its proportionate share of the initial portfolio's market value. It follows that an investor who simply wants the greatest possible expected return should hold one security; the one which is considered to have a greatest expected return. Very few investors do this, and very few investment advisors would counsel such and extreme policy instead, investors should diversify, meaning that their portfolio should include more than one security.

OBJECTIVES OF PORTFOLIO MANAGEMENT:

The main objective of investment portfolio management is to maximize the returns from the investment and to minimize the risk involved in investment. Moreover, risk in price or inflation erodes the value of money and hence investment must provide a protection against inflation.

Secondary objectives:

The following are the other ancillary objectives:

- Regular return.
- Stable income.
- Appreciation of capital.
- More liquidity.
- Safety of investment.
- Tax benefits.

Portfolio management services helps investors to make a wise choice between alternative investments with pit any post trading hassle's this service renders optimum returns to the investors by proper selection of continuous change of one plan to another plane with in the same scheme, any portfolio management must specify the objectives like maximum return's, and risk capital appreciation, safety etc in their offer.

NEED FOR PORTFOLIO MANAGEMENT:

Portfolio management is a process encompassing many activities of investment in assets and securities. It is a dynamic and flexible concept and involves regular and systematic analysis, judgment and action. The objective of this service is to help the unknown and investors with the expertise of professionals in investment portfolio management. It involves construction of a portfolio based upon the investor's objectives, constraints, preferences for risk and returns and tax liability. The portfolio is reviewed and adjusted from time to time in tune with the market conditions. The evaluation of portfolio is to be done in terms of targets set for risk and returns. The changes in the portfolio are to be effected to meet the changing condition.

Portfolio construction refers to the allocation of surplus funds in hand among a variety of financial assets open for investment. Portfolio theory concerns itself with the principles governing such allocation. The modern view of investment is oriented more go towards the assembly of proper combination of individual securities to form investment portfolio. 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 modern theory is the view that by diversification risk can be reduced. Diversification can be made by the investor either by having a large number of shares of companies in different regions, in different industries or those producing different types of product lines. Modern theory believes in the perspective of combination of securities under constraints of risk and returns

PORTFOLIO MANAGEMENT PROCESS:

Investment management is a complex activity which may be broken down into the following steps:

1) Specification of investment objectives and constraints:

The typical objectives sought by investors are current income, capital appreciation, and safety of principle. The relative importance of these objectives should be specified further the constraints arising from liquidity, time horizon, tax and special circumstances must be identified.

2) choice of the asset mix :

The most important decision in portfolio management is the asset mix decision very broadly; this is concerned with the proportions of 'stocks' (equity shares and units/shares of equity-oriented mutual funds) and 'bonds' in the portfolio.

The appropriate 'stock-bond' mix depends mainly on the risk tolerance and investment horizon of the investor.

ELEMENTS OF PORTFOLIO MANAGEMENT:

Portfolio management is on-going process involving the following basic tasks:

- Identification of the investor's objectives, constraints and preferences.
- Strategies are to be developed and implemented in tune with investment policy formulated.
- Review and monitoring of the performance of the portfolio.
- Finally the evaluation of the portfolio

Risk:

Risk is uncertainty of the income /capital appreciation or loss or both. All investments are risky. The higher the risk taken, the higher is the return. But proper management of risk involves the right choice of investments whose risks are compensating. The total risks of two companies may be different and even lower than the risk of a group of two companies if their companies are offset by each other.

SOURCES OF INVESTMENT RISK:

Business risk:

As a holder of corporate securities (equity shares or debentures), you are exposed to the risk of poor business performance. This may be caused by a variety of factors like heightened competition, emergence of new technologies, development of substitute products, shifts in consumer preferences, inadequate supply of essential inputs, changes in governmental policies, and so on.

RETURNS ON PORTFOLIO:

Each security in a portfolio contributes return in the proportion of its investments in security. Thus the portfolio expected return is the weighted average of the expected return, from each of the securities, with weights representing the proportions share of the security in the total investment. Why does an investor have so many securities in his portfolio? If the security ABC gives the maximum return why not he invests in that security all his funds and thus maximize return? The answer to this questions lie in the investor's perception of risk attached to investments, his objectives of income, safety, appreciation, liquidity and hedge against loss of value of money etc. this pattern of investment in different asset categories, types of investment, etc., would all be described under the caption of diversification, which aims at the reduction or even elimination of non-systematic risks and achieve the specific objectives of investors

RISK ON PORTFOLIO:

The expected returns from individual securities carry some degree of risk. Risk on the portfolio is different from the risk on individual securities. The risk is reflected in the variability of the returns from zero to infinity. Risk of the individual assets or a portfolio is measured by the variance of its return. The expected return depends on the probability of the returns and their weighted contribution to the risk of the portfolio. These are two measures of risk in this

context one is the absolute deviation and other standard deviation.

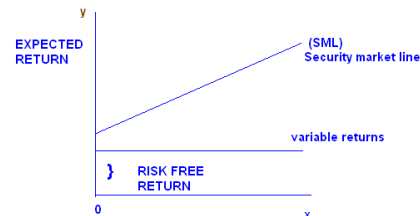
Most investors invest in a portfolio of assets, because as to spread risk by not putting all eggs in one basket. Hence, what really matters to them is not the risk and return of stocks in isolation, but the risk and return of the portfolio as a whole. Risk is mainly reduced by Diversification.

RISK RETURN ANALYSIS:

All investment has some risk. Investment in shares of companies has its own risk or uncertainty; these risks arise out of variability of yields and uncertainty of appreciation or

depreciation of share prices, losses of liquidity etc

The risk over time can be represented by the variance of the returns. While the return over time is capital appreciation plus payout, divided by the purchase price of the share.



III. DATA ANALYSIS AND INTERPRETATION

MARUTI SUZUKI:

Year	(P0)	(P1)	D	(P1-P0)	$D+(P1-P0)/P0*100$
2019-20	924	992	4.5	68	11.86
2020-21	992	520	5	-472	-42.58
2021-22	520	1560	3.5	1,040	203.50
2022-23	1560	1421	6	-139	-2.91
2023-24	1421	935	7.5	-486	-26.70
AVERAGE RETURN					28.63

ACC CEMENTS:

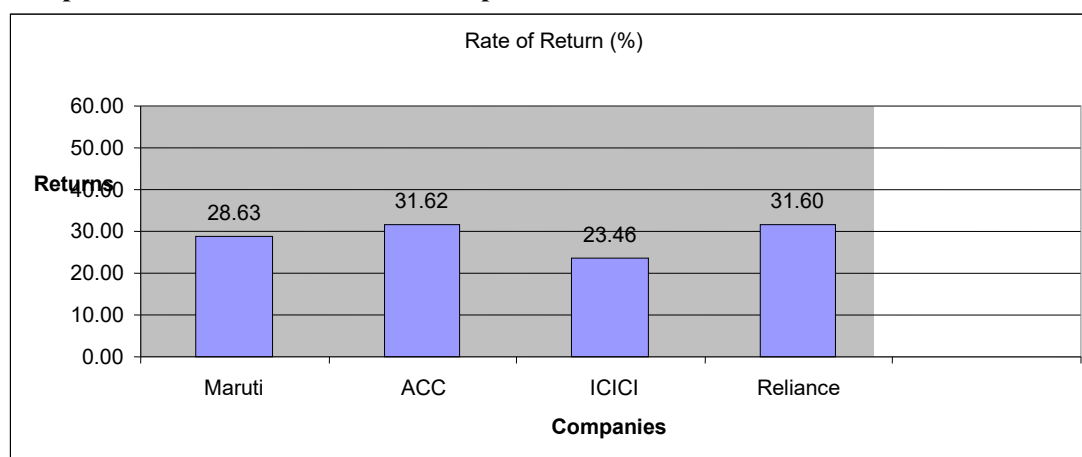
Year	(P0)	(P1)	D	(P1-P0)	$D+(P1-P0)/P0*100$
2019-20	1074	1028	20	-46	15.72
2020-21	1028	478	20	-550	-33.50
2021-22	478	872	23	394	105.43
2022-23	872	1076	30.5	204	53.89
2023-24	1076	1136	11	60	16.58
AVERAGE RETURN					31.62

ICICI BANK:

Year	(P0)	(P1)	D	(P1-P0)	$\frac{D+(P1-P0)}{P0*100}$
2019-20	899	1231	10	332	46.93
2020-21	1231	448	11	-783	-52.61
2021-22	448	876	11	428	106.54
2022-23	876	1145	12	269	42.71
2023-24	1145	684	14	-461	-26.26
AVERAGE RETURN					23.46

RELIANCE:

Year	(P0)	(P1)	D	(P1-P0)	$\frac{D+(P1-P0)}{P0*100}$
2019-20	638	1424	11	786	134.20
2020-21	1424	615	13	-809	-43.81
2021-22	615	1089	13	474	90.07
2022-23	1089	1058	7	-31	4.15
2023-24	1058	692	8	-366	-26.59
AVERAGE RETURN					31.60

Comparative Returns on Selected Scripts:

PORTFOLIO RETURNS & RISKS OF THE SELECTED STOCKS

Scrip A	Scrip B	Portfolio Return	Portfolio Risk
Maruti	ACC	33.08%	37.68%
Maruti	ICICI	21.2%	52.17%
Maruti	Reliance	30.97%	67.16%
ACC	ICICI	35%	45.06%
ACC	Reliance	31.61%	45.36%
ICICI	Reliance	24.10%	56.60%

FINDINGS

Investors would be able to achieve when the returns of shares and debentures Resultant would be known as diversified portfolio. Thus portfolio construction would address itself to three major via, selectivity, timing and diversification. In case of portfolio management, negatively correlated assets are most profitable. A rational investor would constantly examine his chosen portfolio both for average return and risk.

- Individual returns on the selected stocks including Maruti, ACC, ICICI, Reliance are 28.63%, 31.62%, 23.46%, 31.60% respectively.
- Individual risks on the selected stocks including Maruti, ACC, ICICI, Reliance are 89.43%, 46.18%, 56.71%, 68.95% respectively.
- Correlation between all the companies is positive which means all the combinations of portfolios are at good position to gain in future.
- Portfolios Returns of followed by ACC & ICICI (35%) and Maruti & ACC (33.08%) stood on the top while Portfolio Returns of Maruti & ICICI (21.2%) and ICICI & Reliance (24.10) stood at the bottom.
- Portfolios Risk of Maruti (89. 3%) followed by Reliance & Maruti (67%)

and Reliance are very high while Portfolio Risks of ACC & TCS (22.61%) , Maruti & ACC (37.68%) stood at the bottom.

SUGGESTIONS

- All the stocks under consideration have given positive return which indicates the positive performance of the stock market, specially the SENSEX stocks. has been the outstanding performer with a return of nearly 55%. This indicates that Investors can be assured of good returns in the long run by investing in blue chip companies. Rest of the stocks has given average returns ranging from 24% to 32%.
- Comparing the individual risks, Maruti are risky securities compared to the other securities like Reliance, ACC and ICICI and it suggested that the investors should be careful while investing in these securities.
- The investors who require minimum return with low risk can invest in ICICI and ACC.
- It is recommended that the investors who require high risk with high return should invest in ACC.
- All the investors who invest in the securities are ultimately benefited by investing in selected scripts of Industries.

- Investors are advised to invest in Portfolios of Reliance & ACC (37.43%) followed by ACC & ICICI (35%) and Maruti & ACC (33.08%) which have given the maximum returns.
- Low Risk investors are advised to keep away from Maruti (risk of 89.3%) and prefer the Portfolios of ACC (22.61%), Maruti (37.68%) which have the least risk.

Some general rules to follow while investing in securities include:

- Never invest on the basis of an insider trader tip in a company which is not sound (insider trader is person who gives tip for trading in securities based on prices sensitive up price sensitive unpublished information relating to such security).
- Never invest in the so called promoter quota of lesser known company.
- Never invest in a company about which you do not have appropriate knowledge.
- Never at all invest in a company which doesn't have a stringer financial record your portfolio should not stagnate.
- Shuffle the portfolio and replace the slow moving sector with active ones, investors were shattered when the technology, media, software, stops, have taken a down slight.
- Never fall to magic of the scripts don't confine to the blue chip company's look out for other portfolio that ensure regular dividends.

In the same way never react to sudden raise or fall in stock market index such fluctuations in movement minor correction's in stock market held in consolidation of market their by reading out a weak player often taste on wait for the dust and dim to settle to make your move".

IV. CONCLUSIONS

Investment assets and securities are the focus of portfolio management, which entails a wide range of tasks. Analysis, judgement, and action are part of this fluid and ever-changing idea. If

the assets are pooled in a way that yields greater returns after accounting for the risk factors, the combination will be advantageous.

Assisting investors in making informed decisions among alternative investments in the absence of post-trade shares is the primary goal of portfolio management. Objectives such as maximum returns, optimal returns, capital appreciation, safety, etc., should be specified in the prospectus by any portfolio management.

Through careful selection and ongoing portfolio shifting across schemes or even within the same scheme, our service ensures that investors get the best possible returns.

Investors are always drawn to the mix of a higher portfolio return and lower risk.

BIBLIOGRAPHY

BOOKS

1. DONALDE, FISHER & RONALD J.JODON
SECURITIES ANALYSIS AND PORTFOLIO MANAGEMENT, 6TH EDITION
2. V.K.BHALLA
INVESTMENTS MANAGEMENT S. CHAND PUBLICATION.
3. V.A.AVADHANI.
INVESTMENT MANAGEMENT

Website

4. WWW. Investopedia.com
5. www.nseindia.com
6. www.bseindia.com.
7. www.arihantcapital.com

Newspapers & magazine

9. DAIRY NEWS PAPERS.
ECONOMIC TIME, FINANCIAL EXPRES.ETC