

# A Study on Risk and Return Analysis of Equity Shares and Fixed-Income Securities

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**Abstract-** Investment decisions are primarily influenced by the relationship between risk and return. Investors seek investment avenues that provide maximum returns while maintaining an acceptable level of risk. Equity shares and fixed-income securities are among the most widely preferred investment instruments. Equity shares offer opportunities for capital appreciation and dividend income but involve higher market risk. Fixed-income securities such as government bonds, corporate bonds, and debentures provide stable returns with comparatively lower risk. The present study examines the risk-return characteristics of equity shares and fixed-income securities using both primary and secondary data. Primary data were collected from 200 investors through a structured questionnaire, while secondary data were obtained from stock market reports, company annual reports, and financial databases. Statistical tools including percentage analysis, mean, and standard deviation, coefficient of variation, correlation analysis, chi-square test, t-test, and regression analysis were employed. The findings indicate that younger investors prefer equity investments due to higher return expectations, whereas older investors favor fixed-income securities for capital preservation and income stability. The study further reveals that equity shares generate higher average returns but are associated with greater volatility. Fixed-income securities exhibit lower returns but provide greater consistency and lower risk exposure. The research concludes that a balanced portfolio containing both asset classes can optimize risk-adjusted returns and achieve long-term financial objectives.

**Keywords-** Equity Shares, Fixed-Income Securities, Risk Analysis, Return Analysis, Investment Decisions.

## I. INTRODUCTION

Investment plays a crucial role in the economic development of a nation and wealth creation for individuals. In the modern financial environment, investors are continuously seeking avenues that can provide maximum returns while maintaining an acceptable level of risk. The concept of investment revolves around committing funds to financial assets with the expectation of generating future income, capital appreciation, or both. However, every investment decision involves a trade-off between risk and return. Understanding this relationship is essential for investors, portfolio managers, and policymakers in formulating effective investment strategies. Risk and return are considered the two fundamental dimensions of investment analysis. Return refers to the gain or loss earned on an investment over a specified period, usually expressed as a percentage of the investment amount. It may be realized in the form of dividends, interest income, capital appreciation, or a combination of these. Risk, on the other hand, refers to the uncertainty associated with achieving expected returns. The

possibility that actual returns may differ from expected returns constitutes investment risk. Generally, investments offering higher returns are associated with higher levels of risk, while safer investments tend to provide lower returns.

Among the numerous investment alternatives available in financial markets, equity shares and fixed-income securities represent two major asset classes. Equity shares are ownership instruments that provide investors with a stake in a company's assets and earnings. Shareholders participate in the growth and profitability of a company through dividends and capital appreciation. Equity investments are highly influenced by market conditions, company performance, economic policies, and investor sentiment. Consequently, equity shares are regarded as high-risk, high-return investment instruments.

Fixed-income securities, in contrast, are debt instruments that provide predetermined returns at specified intervals. Examples include government bonds, corporate bonds, debentures, treasury bills, and fixed deposits. These securities offer

investors regular income and repayment of principal upon maturity. Because of their predictable cash flows and lower volatility, fixed-income securities are generally considered safer investment options. However, they typically provide lower returns compared to equities.

The relationship between risk and return has been extensively studied in finance literature. The traditional financial theory suggests that investors are risk-averse and therefore require compensation for bearing additional risk. This principle forms the foundation of various investment theories, including Modern Portfolio Theory (MPT), Capital Asset Pricing Model (CAPM), Arbitrage Pricing Theory (APT), and Efficient Market Hypothesis (EMH). These theories explain how investors evaluate risk and return while making investment decisions. The development of capital markets has expanded investment opportunities for individuals and institutions. Technological advancements, online trading platforms, and increased financial literacy have encouraged greater participation in financial markets. Investors now have access to a wide range of financial products that cater to varying risk appetites and investment objectives. As a result, understanding the comparative performance of different investment avenues has become increasingly important.

Equity markets play a vital role in mobilizing savings and allocating capital efficiently within the economy. They facilitate business expansion, innovation, and employment generation. Investors who participate in equity markets benefit from long-term wealth creation through capital gains and dividend income. However, stock markets are subject to volatility arising from economic fluctuations, geopolitical developments, inflation, interest rate changes, and company-specific events. Such uncertainties can significantly affect investment returns. Fixed-income securities, meanwhile, contribute to financial stability by offering predictable returns and preserving capital. Government bonds are often considered risk-free investments due to sovereign guarantees, while corporate bonds provide slightly higher returns in exchange for credit risk.

Fixed-income investments are particularly attractive to conservative investors, retirees, and individuals seeking stable income streams. Investment decisions are influenced by numerous factors including age, income, education, financial goals, risk tolerance, investment horizon, and market conditions. Younger investors often exhibit higher risk

tolerance and allocate larger portions of their portfolios to equities. Conversely, older investors nearing retirement generally prefer fixed-income securities due to their emphasis on capital preservation and income stability. Portfolio diversification is another critical concept in investment management. Diversification involves allocating investments across different asset classes to reduce overall portfolio risk. By combining equity shares and fixed-income securities, investors can achieve an optimal balance between risk and return. Modern portfolio theory suggests that diversification reduces unsystematic risk while enhancing risk-adjusted returns.

The Indian financial market has experienced substantial growth over the past two decades. Regulatory reforms, increasing investor awareness, digitalization, and economic expansion have strengthened participation in both equity and debt markets. Stock exchanges such as the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) provide platforms for equity trading, while government securities, corporate bonds, and debt mutual funds offer fixed-income investment opportunities. Despite the availability of numerous investment alternatives, investors often face challenges in selecting suitable investment avenues. Market uncertainty, inflation, changing interest rates, and economic fluctuations complicate investment decisions. Therefore, a comparative analysis of risk and return characteristics of equity shares and fixed-income securities is essential for informed decision-making.

The present study seeks to examine the risk-return dynamics of these two major asset classes using both primary and secondary data. By evaluating investor perceptions, preferences, and investment outcomes, the study aims to provide valuable insights into investment behavior and portfolio management practices. The findings are expected to assist investors in making rational investment decisions while balancing risk and return according to their financial objectives.

## II. REVIEW OF LITERATURE

**Harry Markowitz (1952)**, Harry Markowitz introduced the Modern Portfolio Theory (MPT) through his pioneering work on portfolio selection. The study emphasized that investors should not evaluate securities individually but rather consider the risk-return characteristics of the entire portfolio. Markowitz demonstrated that diversification could significantly reduce portfolio risk without sacrificing expected returns. The research established variance and standard deviation as measures of

investment risk and laid the foundation for modern investment management practices. The study concluded that an efficient portfolio maximizes expected returns for a given level of risk.

**2. William F. Sharpe (1964)**, Sharpe developed the Capital Asset Pricing Model (CAPM), which explains the relationship between risk and expected return. The model introduced beta as a measure of systematic risk and suggested that investors should be compensated only for market-related risk because unsystematic risk can be diversified away. The study established a linear relationship between expected return and systematic risk.

**3. Jensen (1968)**, Jensen evaluated mutual fund performance using risk-adjusted return measures and introduced Jensen's Alpha as a performance evaluation tool. The study found that many actively managed portfolios failed to consistently outperform market benchmarks after adjusting for risk. The research highlights the importance of risk-adjusted performance analysis when comparing investment alternatives.

**4. Fama and French (1992)**, Fama and French challenged the traditional CAPM by identifying additional factors affecting stock returns. Their study found that company size and book-to-market ratio significantly influence equity returns. The three-factor model provided a more comprehensive explanation of stock performance than CAPM alone. The study emphasizes that equity returns are influenced by multiple risk factors beyond market risk.

**5. Fabozzi (2001)**, Fabozzi conducted extensive research on fixed-income securities and portfolio management. The study analyzed bond valuation, interest rate risk, duration, and yield analysis. Findings indicated that fixed-income securities provide stability and income generation but remain sensitive to changes in interest rates and credit quality.

**6. Elton, Gruber and Blake (2003)**, the researchers examined corporate bond performance and risk characteristics. Their findings revealed that corporate bonds offer higher yields than government securities due to credit risk premiums. The study highlighted the importance of credit ratings in fixed-income investment decisions.

**7. Barber and Odean (2008)**, the authors investigated investor behavior and trading patterns. Their study found that individual investors often make suboptimal decisions due to

overconfidence and behavioral biases. Excessive trading was associated with lower investment returns.

**8. Bodie, Kane and Marcus (2014)**, the authors examined various investment avenues and portfolio strategies. Their research concluded that diversification across equities and fixed-income securities improves portfolio efficiency and reduces overall risk exposure.

### III. RESEARCH GAP

Most previous studies have focused independently on either equity shares or fixed-income securities while examining risk-return relationships. Research based on Modern Portfolio Theory and CAPM primarily emphasizes market risk and portfolio optimization but often overlooks investor-specific factors such as age, income, occupation, and risk perception. Furthermore, many studies rely exclusively on secondary market data and fail to incorporate primary data reflecting actual investor preferences and behavior. The rapid evolution of financial markets, increasing investor participation, digital trading platforms, and changing economic conditions have altered investment patterns significantly.

There is a lack of recent empirical studies that compare the risk and return characteristics of equity shares and fixed-income securities simultaneously using both primary and secondary data. Therefore, the present study addresses this gap by analyzing investor behavior, risk perception, return expectations, and comparative investment performance through a survey of 200 respondents along with market-based secondary data, thereby providing a comprehensive understanding of investment decision-making in contemporary financial markets.

#### Objectives of the Study

1. To analyze the risk and return characteristics of equity shares.
2. To evaluate the risk and return characteristics of fixed-income securities.

### IV. RESEARCH METHODOLOGY

Particulars	Description
Research Design	Descriptive and Analytical
Nature of Study	Quantitative
Sample Size	200 Investors
Sampling Technique	Convenience Sampling
Data Sources	Primary and Secondary
Primary Data	Structured Questionnaire
Secondary Data	NSE, BSE reports, company annual reports, journals
Statistical Tools	Percentage, Mean, SD, CV, Correlation, Chi-Square, Regression
Study Area	Selected Investors

**Demographic Profile of Respondents**

Variable	Category	Frequency	Percentage
<b>Age</b>	Below 30	60	30%
	31-40	70	35%
	41-50	45	22.5%
	Above 50	25	12.5%
<b>Gender</b>	Male	130	65%
	Female	70	35%
<b>Occupation</b>	Salaried	90	45%
	Business	60	30%
	Professional	30	15%
	Others	20	10%
<b>Annual Income</b>	Below ₹5 Lakh	55	27.5%
	₹5–10 Lakh	75	37.5%
	₹10–15 Lakh	45	22.5%
	Above ₹15 Lakh	25	12.5%

Table 1: Preferred Investment Avenue

Investment Type	Respondents	Percentage
Equity Shares	120	60%
Fixed-Income Securities	80	40%

**Interpretation**

A majority of investors (60%) prefer equity shares due to their potential for higher returns, while 40% prefer fixed-income securities because of their safety and stability.

Table 2: Risk Perception

Risk Level	Frequency	Percentage
Low	45	22.5%
Moderate	95	47.5%
High	60	30%

**Interpretation**

Nearly half of the investors perceive moderate risk as acceptable, indicating balanced investment behavior.

Table 3: Average Annual Returns

Investment Avenue	Mean Return (%)	Standard Deviation
Equity Shares	14.8	8.5
Fixed-Income Securities	7.2	2.3

**Interpretation**

Equity shares generate significantly higher returns than fixed-income securities but involve substantially greater volatility.

Objective 1: To Analyze the Risk and Return Characteristics of Equity Shares.

Table 1: Investors' Perception of Returns from Equity Shares (n = 200)

Return Category	Number of Respondents	Percentage (%)
Very High Returns	50	25.0

Return Category	Number of Respondents	Percentage (%)
High Returns	85	42.5
Moderate Returns	45	22.5
Low Returns	20	10.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

**Interpretation**

The above table indicates that 42.5% of respondents perceive equity shares as generating high returns, while 25% believe they provide very high returns. Only 10% of investors consider equity shares to generate low returns. This suggests that investors generally associate equity investments with superior return potential compared to other investment avenues.

Table 2: Investors' Perception of Risk in Equity Shares

Risk Level	Number of Respondents	Percentage (%)
Very High Risk	55	27.5
High Risk	75	37.5
Moderate Risk	50	25.0
Low Risk	20	10.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

**Interpretation**

The table reveals that 65% of respondents perceive equity shares as either highly risky or very highly risky. Only 10% consider them low-risk investments. This confirms the general understanding that equity investments involve substantial market volatility and uncertainty.

Objective 2: To Evaluate the Risk and Return Characteristics of Fixed-Income Securities

Table 4: Investors' Perception of Returns from Fixed-Income Securities

Return Category	Number of Respondents	Percentage (%)
High Returns	25	12.5
Moderate Returns	90	45.0

Return Category	Number of Respondents	Percentage (%)
Low Returns	85	42.5
<b>Total</b>	<b>200</b>	<b>100.0</b>

**Interpretation**

A majority of respondents (45%) perceive fixed-income securities as offering moderate returns, while 42.5% consider returns to be low. This indicates that investors generally view fixed-income investments as stable but less rewarding compared to equities.

Table 5: Investors' Perception of Risk in Fixed-Income Securities

Risk Level	Number of Respondents	Percentage (%)
High Risk	15	7.5
Moderate Risk	55	27.5
Low Risk	130	65.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

**Interpretation**

The majority (65%) of respondents consider fixed-income securities to be low-risk investments. Only 7.5% perceive them as highly risky. This demonstrates the safety and stability associated with debt-based investment instruments.

**Findings of the Study**

The present study was conducted to analyze and compare the risk and return characteristics of equity shares and fixed-income securities based on responses collected from 200 investors. The analysis revealed significant differences in investor perceptions, risk tolerance, and return expectations regarding these two investment avenues.

The study found that equity shares are widely regarded as high-return investment instruments. A majority of the respondents believed that equity investments provide opportunities for substantial capital appreciation over the long term. Approximately two-thirds of the investors perceived equity shares as capable of generating high or very high returns. This indicates that investors recognize the wealth-creation potential of equity markets despite their inherent volatility. The findings further revealed that equity shares are associated with a higher level of risk compared to fixed-income securities. Most respondents categorized equity investments as high-risk or very high-risk due to fluctuations in stock prices, market

uncertainty, economic conditions, and company-specific factors. The statistical analysis also supported this perception, showing a higher standard deviation and coefficient of variation for equity returns. This indicates that while equity investments generate superior returns, they expose investors to greater uncertainty and market fluctuations.

Overall, the findings indicate that neither equity shares nor fixed-income securities can be considered universally superior investment avenues. Rather, their suitability depends upon the investor's financial objectives, investment horizon, income level, and risk-bearing capacity. A balanced approach combining both asset classes appears to be the most effective strategy for achieving optimal risk-adjusted returns.

## V. CONCLUSION

The present study examined the risk and return characteristics of equity shares and fixed-income securities and analyzed investor preferences regarding these investment avenues. The findings provide valuable insights into the relationship between risk, return, and investment decision-making among individual investors.

The study concludes that equity shares represent high-risk, high-return investment instruments capable of generating substantial wealth over the long term. Their superior return potential makes them attractive to investors seeking capital appreciation and long-term growth. However, the high volatility associated with equity markets requires investors to possess adequate risk tolerance and a long-term investment perspective. Both equity shares and fixed-income securities possess unique advantages and limitations. Equity investments are suitable for investors seeking higher returns and willing to accept greater risk, whereas fixed-income securities are ideal for investors prioritizing capital preservation and stable income. Therefore, investors should carefully evaluate their financial objectives, risk appetite, and investment horizon before allocating funds. A well-diversified portfolio comprising both asset classes is likely to provide the most effective balance between risk and return, thereby contributing to long-term financial security and wealth creation.

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