



# Risk Return Relationship – An Empirical Study Of Fmcg Companies Listed With Nse In India

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**Abstract:** Risk and return analysis are essential to any investment decision-making process in determining the value of the underlying assets. With the aid of the Capital Asset Pricing Model (CAPM), the current article tries to investigate the relationship between risk and return of a few FMCG companies that are listed on the NSE. For the study, five FMCG firm stocks were chosen using the judgmental sampling method. FMCG corporations have established stocks. Many of these stocks provide investors with consistent profits. Investors are shielded against market downturns, inflation, and economic recessions as a result of this consistency. Investors can determine which industry will be more profitable for them to invest in by examining the stocks of these companies. Any sector's complexities would be revealed through an investigation of the risk and return relationship for that specific business.

**Index Terms** - NSE, FMCG company, Risk, Return, Beta, CAPM

## I. INTRODUCTION

The largest industry in the world is the FMCG sector in India. More than 10 million people are employed in India's FMCG industry, which is projected to contribute 15% of the country's GDP. Due to rising urbanization, a growing middle-class population, changing lifestyles, and rising disposable incomes among consumers, the FMCG sector has been expanding quickly over time. Risk is the hazard of an uncertain future. The estimated return is the revenue anticipated to be produced for the upcoming time frame. The realized return is the return that was really earned over the previous period. An asset's realized return could differ from its anticipated return. The range of deviation from the anticipated amount of return can be used to define volatility. A stock is more volatile the more it varies. This is because the huge price changes increase the unpredictability of a result. Because risk can be transferred or regulated to some extent but not eliminated from the system, risk measurement and analysis are essential components of any investment decision. Any investment decision must start with a risk assessment.

## REVIEW OF LIREATURE:

**Dr.Janet Jyothi Dsouza et.al (2018)** made study on "an empirical study on risk & return analysis of the mining sector" The goal of the study was to explore beta stability as well as the link between security return and market return. Using a judgmental sample method, they chose the top 6 mining corporations. The market return and security return were found to be positively connected. The sample companies' beta values have not been consistent over time and have experienced significant swings during the research period.

**M.Muthu Gopalakrishnan and Akarsh PK (2017)** This study is totally depend on risk and return analysis, to take investment decision. Various tools used for this study are Mean, S.D, Variance, Correlation, Beta. This study concludes that investor need to keep in mind both terms risk factor and return potential of

companies. It will differ from company to company. It concluded that equity analysis is an important technique to measure risk and return factors of companies' equity.

**Dr.Poornima et.al (2017)** had a paper on "Relationship between Risk and Return Analysis of Selected Stocks on NSE Using Capital Asset Pricing Model" The purpose of the study was to use the CAPM model to compare the average return with the typical predicted return. The survey included 10 businesses, including 5 from the NSE-listed automobile and IT sectors, respectively. The IT sector, which had average negative returns over the study period, was found to have underperformed with a greater growth in the market.

**Nagarajan and Prabhakaran (2013)**, the authors conducted the study in order to analyse the risk and return aspects associated with the selected 10 major FMCG companies listed on NSE and also the fluctuations of their stock prices. The stock prices data was being collected for a period of one year. The tools such as standard deviation, correlation, beta, covariation was being used. They concluded that the stock prices of the companies HUL& ITC were comparatively more volatile than other companies under the study period, and that the companies had a positive movement in the prices in relation to the market.

#### OBJECTIVES OF THE STUDY:

- To analyze the relationship between risk and return for select FMCG companies.
- To examine the beta durability for select FMCG companies.
- To compare the average return with the expected return using the CAPM.

#### RESEARCH METHODOLOGY:

Using the monthly closing data of five specific FMCG companies listed on the NSE, the risk and return are evaluated. Based on the judgmental sampling process, these 4 public limited firms that are listed on the NSE were chosen. The list of sample companies are Hindustan Unilever Limited, Nestle India Limited, Britannia Industries Limited and Godrej Consumer Limited.

The majority of the secondary data used in the study was collected during a five-year period, from 2018 to 2023, from the official websites of the selected companies and the National Stock Exchange. The study uses NSE NIFTY 50 as a market equivalency. Tools used in the study to authenticate the objectives are Return, Average Return, Beta, Standard Deviation and CAPM.  $CAPM = R_f + \beta(R_m - R_f)$ ,  $R_f$ =10-year bond yield- Default country spread,  $R_m - R_f$  = Mature market premium + Country risk premium

#### ANALYSIS & INTERPRETATION:

Table 1: Risk, Return & Beta of Hindustan Unilever Limited

Year	Average monthly return on stock	Average monthly return on index	Variance	Standard deviation	beta	Required return
2018	3.55%	0.83%	0.26%	5.15%	0.86	11.88
2019	1.37%	0.81%	0.25%	5.01%	0.66	11.58
2020	2.72%	-2.49%	0.28%	5.33%	-0.10	5.21
2021	1.31%	3.79%	0.46%	6.75%	0.64	10.36
2022	-0.90%	1.69%	0.49%	6.97%	1.15	13.27
2023	1.70%	0.23%	0.50%	7.07%	0.97	13.86

From the table 1, We can understand that in 2018 average monthly return on HUL stock was 3.55% and market return of 0.83% with beta value of 0.86. In 2019 average return on stock was 1.37% and average return on index was 0.81% with beta value of 0.66. During the year 2020 average return on index was negative -2.49%, but average return on stock was positive 2.72% with negative beta value -0.10. Negative beta depicts that returns were less than the risk-free rate. In 2021 return on stock was 1.31% and market provided 3.79% of return with beta value of 0.64, for the year 2022 stock return was negative -0.90% and market return was 1.69% with beta value of 1.15. In year 2023 return of the stock was 1.70% and return of the market was 0.23% with beta value of 0.97. The security was positive in all the year except in 2022. The deviation of expected return was very high in the year of 2023 with 7.07% and very low in the year 2019 with 5.01%.

**Table 2: Risk, Return & Beta of Nestle India Limited**

Year	Average monthly return on stock	Average monthly return on index	Variance	Standard deviation	beta	Required return
2018	2.02%	0.83%	0.09%	3.04%	-0.62	1.11
2019	1.79%	0.81%	0.49%	7.01%	1.03	14.73
2020	4.05%	-2.49%	0.16%	4.05%	0.14	6.88
2021	-0.11%	3.79%	0.23%	4.79%	0.27	7.78
2022	0.80%	1.69%	0.23%	4.79%	0.99	12.29
2023	0.89%	0.23%	0.21%	4.60%	0.92	13.50

Table 2 it shows that in 2018 return on stock was 2.02% and return on index was 0.83% with a negative beta of -0.62. in the year 2019 stock return was 1.79% and market return were 0.81 % with beta value of 1.03. In 2020 return on stock was 4.05 percentage and market profile negative repair of minus 2.49% with a beta value of 0.14. In the year 2021 monthly return was negative -0.11% and market provider 3.79% with a beta value of 0.27, For the year 2022 stock return was 0.80% and market return was 1.69% with a beta value of 0.99. In 2023 return on stock was 0.89% and market provide a return of 0.23% with the beta value of 0.92. The item beta value deposits that expected return was below the risk-free rate. The security treatment was fast view all the year except in 2021. The security return was high compared to market return.

**Table 3: Risk, Return & Beta of Britannia**

Year	Average monthly return on stock	Average monthly return on index	Variance	Standard deviation	beta	Required return
2018	3.03%	0.83%	0.14%	3.74%	-0.19	4.26
2019	1.36%	0.81%	0.44%	6.60%	1.08	15.18
2020	-0.39%	-2.49%	0.46%	6.77%	0.59	10.12
2021	1.68%	3.79%	0.29%	5.36%	-0.05	5.64
2022	-0.27%	1.69%	0.44%	6.61%	1.14	13.24
2023	3.09%	0.23%	0.51%	7.16%	0.64	11.17

Table 3. It shows in 2018 stock return was 3.03% and market return was 0.83% with a negative beta value of -0.19. In the year 2019 security return was 1.36% and market provider 0.81% of return with beta value of 1.08. In 2020 return on stock was -0.39% and market also provided with negative return of -2.49% with a beta value of 0.59. In the year 2021 stock provided 1.68% of return and market return was 3.79% with a negative beta value of -0.05. In 2022 the stock return was negative -0.27% and market provider positive return of 1.69% with a beta value of 1.14. in the year 2023 the stock return was 3.09% and market return was 0.23% with beta value of 0.64 The variation was high in the year of 2023 and low in the year of 2018.

**Table 4: Risk, Return & Beta of Godrej**

Year	Average monthly return on stock	Average monthly return on index	Variance	Standard deviation	beta	Required return
2018	2.29%	0.83%	0.22%	4.67%	0.50	9.24
2019	-0.13%	0.81%	0.87%	9.35%	1.47	18.54
2020	-1.58%	-2.49%	0.64%	8.01%	0.62	10.31
2021	3.01%	3.79%	0.59%	7.70%	-0.46	2.79
2022	1.24%	1.69%	1.14%	10.66%	1.92	18.26
2023	2.11%	0.23%	0.32%	5.66%	0.60	10.81

Table 4. In the year 2018 stock provided a return of 2.29% and market provided a return of 0.83% with a beta value of 0.50. In 2019 return on stock was negative value of -0.13% and market provided 0.81% with the beta value of 1.47. In 2020 return on stock and market return value of both are negative with a value of -1.58% and -2.49% with a beta value of 0.62. In 2021 return on stock was 3.01% and return on market was 3.79% with a beta value of -0.46 in 2022. Stock provided return of 1.24% and market provided return of 1.69% with a beta value of 1.92. In the year 2023 stock provided return of 2.11% with market provided return of 0.23% with a beta value of 0.60. the variation of the stock was high in the year of 2022 with the value of 1.14 percentage and low in the year of 2018.

### CONCLUSION:

A variety of risk variables can affect an investment in the securities market. The risk is defined in terms of return variability. The actual return an investor receives from an investment may differ from his projected return. Only 6 times did the equities have a negative link with the market, according to the analysis, which showed that approximately 80% of the shares have a favorable relationship with the market. Almost all the companies during the research period provided an actual return that was smaller than the predicted return, according to the analysis of expected return.

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