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# A Quantitative Study on Risk and Return of Leading FMCG Stocks with Reference to Nifty50

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**Abstract**: *The Fast-Moving Consumer Goods (FMCG) sector plays a vital role in the Indian economy, offering consistent consumer demand and investment opportunities. However, despite being considered a relatively stable sector, FMCG stocks exhibit varying degrees of risk and return based on market conditions. This study analyzes the risk-return profile of three leading FMCG stocks—Hindustan Unilever Limited (HUL), Indian Tobacco Company (ITC), and Nestlé India—over a 24-month period from March 2023 to March 2025. Using secondary data, the research employs statistical tools such as mean return, standard deviation, skewness, kurtosis, and beta to evaluate volatility and market sensitivity. The findings reveal that Nestlé India provided the highest average return with moderate risk, while ITC exhibited high volatility but offered substantial upside potential. HUL, on the other hand, showed slightly negative returns and frequent downside movements. The study concludes that a quantitative assessment of risk and return is essential for informed investment decision-making, particularly in sector-specific stock selection and portfolio management.*

**Keywords**: FMCG Stocks, Risk and Return, Beta Analysis, Stock Volatility, Market Sensitivity, Investment Decision, Portfolio Management, HUL, ITC, Nestlé India, Nifty50

## I. INTRODUCTION

The Fast-Moving Consumer Goods (FMCG) sector is a vital component of India's economic growth, contributing significantly to the GDP and employment. Given its consumer-driven nature, FMCG stocks are often considered defensive investments with consistent returns. However, the recent market volatility and global economic uncertainties have highlighted the need to analyze the risk and return characteristics of these stocks. The Fast-Moving Consumer Goods (FMCG) sector is one of the largest and most dynamic sectors in the Indian economy, characterized by high consumer demand, frequent purchase cycles, and low-profit margins but high-volume sales. As a part of the non-durable goods segment, FMCG companies include those producing daily-use products like packaged food, personal care, household items, and beverages. In India, companies like Hindustan Unilever Limited (HUL), Indian Tobacco Company (ITC), and Nestlé India are at the forefront of the sector, commanding large market shares and investor attention. Despite its perceived stability, the FMCG sector is not immune to stock market volatility, economic downturns, and external shocks such as inflation, taxation changes, and geopolitical events. Investment in FMCG stocks is often seen as a defensive strategy, particularly during economic slowdowns. However, the risk-return profile of individual FMCG stocks varies significantly based on their financial performance, consumer base, innovation capabilities, and management efficiency. Hence, a systematic and quantitative evaluation of risk and return becomes essential for investors and analysts alike. According to Sharpe (1964) and Lintner (1965), the relationship between risk and return is central to investment theory, as explained by the Capital Asset Pricing Model (CAPM). Beta, a key component of CAPM, measures the sensitivity of a stock's returns to market movements, thereby providing a basis for assessing risk. The use of descriptive statistics and beta calculations has been widely acknowledged for stock evaluation in various sectors but remains underutilized in the FMCG domain.

Several studies have contributed to the literature on risk-return assessment, though a focused analysis on FMCG stocks in India is limited:

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Ranganathan and Madhumathi (2006) examined the risk-return characteristics of selected Indian stocks and concluded that sector-specific volatility should be accounted for in portfolio construction. Kumar and Puja (2012) analyzed the stock performance of FMCG firms and emphasized the importance of evaluating beta values to understand systematic risk.

Srinivasan (2015) investigated investor preferences in the FMCG sector, finding that brand perception often outweighs financial fundamentals, leading to mispriced risks. Mishra and Mohapatra (2020) evaluated the performance of selected FMCG stocks using return analysis and reported that many stocks displayed asymmetrical return distributions, which could mislead investors relying only on average returns. Gupta and Choudhary (2021) utilized standard deviation and beta to assess the volatility of consumer goods firms, observing that FMCG stocks, though stable, can underperform or outperform the market depending on their cost-efficiency and marketing agility. Despite these contributions, the existing literature shows a gap in the comparative, empirical, and statistical study of major FMCG stocks over a consistent timeline in relation to market benchmarks like the Nifty50. Further, there is limited integration of monthly return-based analysis and beta estimation to evaluate relative volatility and market responsiveness of these stocks in the Indian context. Previous studies have primarily focused on financial performance, profitability, or branding aspects of FMCG companies (e.g., Singh & Yadav, 2018; Sharma, 2020). Limited research has delved into quantitative risk-return metrics such as beta, standard deviation, skewness, and kurtosis for leading FMCG stocks in a comparative framework with market indices like Nifty50.

**Research Gap:**

This study aims to fill that gap by employing a risk-return analytical framework that includes mean returns, standard deviation, skewness, kurtosis, and beta values for selected FMCG stocks (HUL, ITC, Nestlé India) based on monthly data from March 2023 to March 2025. Through this approach, the research contributes to investment decision-making, especially for retail and institutional investors seeking to balance risk and returns in their portfolios within the FMCG domain.

## II. NEED OF THE STUDY

The FMCG sector, despite being considered relatively stable, is not immune to market fluctuations and global economic shocks. Investors require a detailed understanding of the risk-return profile to make rational investment decisions. This study is essential to:

- Identify volatility patterns and return consistency in top FMCG stocks.
- Evaluate how these stocks respond to market movements (beta analysis).
- Assist investors, portfolio managers, and policy makers in risk mitigation and portfolio diversification strategies.
- As per Bhardwaj & Goyal (2021), investors often overlook sector-specific volatility. This study fulfills the growing need for sector-wise micro-level analysis using robust financial indicators.

## III. OBJECTIVES OF THE STUDY

- To analyze the monthly returns of selected FMCG stocks—HUL, ITC, and Nestle India—over a two-year period.
- To compute and compare descriptive statistics (mean, standard deviation, skewness, kurtosis) to evaluate stock behavior.
- To assess the market sensitivity (beta) of selected FMCG stocks in comparison with Nifty50 index.
- To interpret the risk-return tradeoff and provide insights for investment decision-making.
- To suggest suitable portfolio management strategies for moderate to aggressive investors based on the findings.

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## IV. RESEARCH METHODOLOGY

### 4.1 Research Design

The study adopts a quantitative and descriptive research design, focusing on historical stock price data to evaluate risk and return.

### 4.2 Sample Selection

The study focuses on three leading FMCG companies listed on the NSE:
Hindustan Unilever Limited (HUL)
Indian Tobacco Company (ITC)
Nestlé India Limited
These were selected due to their market capitalization, investor base, and relevance in the FMCG segment.

### 4.3 Data Collection

- **Type of Data**: Secondary data
- **Source**: Monthly adjusted closing stock prices from NSE and Nifty50 index
- **Time Period**: March 2023 to March 2025 (24 months)

### 4.4 Tools for Analysis

- **Descriptive Statistics**: Mean, Standard Deviation, Skewness, Kurtosis, Range
- **Risk Measures**: Beta coefficient using regression slope method
- **Software**: Microsoft Excel (SLOPE function for Beta), graphical representations

### 4.5 Limitations

The study is confined to three companies only, hence results are not generalizable to the entire FMCG sector.
It does not consider **external factors** like inflation, policy changes, or consumer behavior.
**Past performance** may not always predict future trends.

## V. ANALYSIS

**Table 1: Hindustan Unilever Limited Return Calculation**

| Date | Price | Change % |
|---|---|---|
| 01-03-2023 | 2,550.20 | 4.05% |
| 01-04-2023 | 2,447.55 | -4.02% |
| 01-05-2023 | 2,656.97 | 8.56% |
| 01-06-2023 | 2,667.53 | 0.40% |
| 01-07-2023 | 2,550.64 | -4.38% |
| 01-08-2023 | 2,495.11 | -2.18% |
| 01-09-2023 | 2,455.82 | -1.57% |
| 01-10-2023 | 2,474.15 | 0.75% |
| 01-11-2023 | 2,535.45 | 2.48% |
| 01-12-2023 | 2,653.39 | 4.65% |
| 01-01-2024 | 2,471.71 | -6.85% |
| 01-02-2024 | 2,402.73 | -2.79% |
| 01-03-2024 | 2,255.37 | -6.13% |
| 01-04-2024 | 2,221.60 | -1.50% |
| 01-05-2024 | 2,319.81 | 4.42% |
| 01-06-2024 | 2,463.24 | 6.18% |
| 01-07-2024 | 2,694.92 | 9.41% |

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| | | |
|---|---|---|
| 01-08-2024 | 2,766.98 | 2.67% |
| 01-09-2024 | 2,946.57 | 6.49% |
| 01-10-2024 | 2,518.22 | -14.54% |
| 01-11-2024 | 2,496.15 | -0.88% |
| 01-12-2024 | 2,326.85 | -6.78% |
| 01-01-2025 | 2,468.80 | 6.10% |
| 01-02-2025 | 2,190.25 | -11.28% |
| 01-03-2025 | 2,268.80 | 3.59% |

From March 2023 to March 2025, Hindustan Unilever Limited's stock experienced notable fluctuations. After initial growth in March and May 2023, it saw a decline through late 2023. A significant drop occurred in January to March 2024, followed by a strong recovery mid-2024, peaking in September (6.49%). However, the stock again declined sharply in October 2024 (-14.54%) and February 2025 (-11.28%). Despite some recovery attempts, the overall trend reveals instability with alternating growth and corrections.

**Table 2: Calculation of Descriptive Statistics of Hindustan Unilever Limited**

| | |
|---|---|
| Mean | -0.003 |
| Standard Error | 0.012537779 |
| Standard Deviation | 0.061422323 |
| Sample Variance | 0.003772702 |
| Kurtosis | -0.141560749 |
| Skewness | -0.473890248 |
| Range | 0.2395 |
| Minimum | -0.1454 |
| Maximum | 0.0941 |
| Sum | -0.072 |
| Count | 24 |
| Confidence Level(95.0%) | 0.025936372 |

The statistical summary indicates that the stock has a slightly negative average return (-0.3%), suggesting weak short-term performance. The standard deviation of 6.14% reflects moderate volatility, implying a reasonable level of risk. Negative skewness (-0.47) suggests that the stock experiences more frequent negative returns than positive ones, indicating downside risk. The kurtosis (-0.14) being close to zero implies a nearly normal return distribution, with no extreme fluctuations. The range of 23.95% highlights significant variation in returns, with a maximum gain of 9.41% and a maximum loss of 14.54%, showing greater downside potential. The 95% confidence interval of ±2.59% suggests that the true mean return is likely within this range, adding statistical reliability. Overall, the stock demonstrates moderate risk with slightly negative returns and a tendency for occasional declines. This suggests careful evaluation before investing, as downside movements could outweigh the upside, requiring additional risk assessment or diversification strategies.

**Table 3: Hindustan Unilever Limited and Nify50 - Beta Calculation**

| Date | HUL Returns% | Nify50 Returns% |
|---|---|---|
| 01-03-2023 | 4.05% | 0.32% |
| 01-04-2023 | -4.02% | 4.06% |
| 01-05-2023 | 8.56% | 2.60% |
| 01-06-2023 | 0.40% | 3.53% |
| 01-07-2023 | -4.38% | 2.94% |

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| | | |
|---|---|---|
| 01-08-2023 | -2.18% | -2.53% |
| 01-09-2023 | -1.57% | 2.00% |
| 01-10-2023 | 0.75% | -2.84% |
| 01-11-2023 | 2.48% | 5.52% |
| 01-12-2023 | 4.65% | 7.94% |
| 01-01-2024 | -6.85% | -0.03% |
| 01-02-2024 | -2.79% | 1.18% |
| 01-03-2024 | -6.13% | 1.57% |
| 01-04-2024 | -1.50% | 1.24% |
| 01-05-2024 | 4.42% | -0.33% |
| 01-06-2024 | 6.18% | 6.57% |
| 01-07-2024 | 9.41% | 3.92% |
| 01-08-2024 | 2.67% | 1.14% |
| 01-09-2024 | 6.49% | 2.28% |
| 01-10-2024 | -14.54% | -6.22% |
| 01-11-2024 | -0.88% | -0.31% |
| 01-12-2024 | -6.78% | -2.02% |
| 01-01-2025 | 6.10% | -0.58% |
| 01-02-2025 | -11.28% | -5.89% |
| 01-03-2025 | 3.59% | 6.30% |

This table compares monthly returns of Hindustan Unilever Limited (HUL) with Nifty50 to assess their relationship. HUL's returns show greater volatility compared to Nifty50—frequently amplifying both gains and losses. For instance, in May 2023, HUL returned 8.56% versus 2.60% for Nifty50, while in October 2024, HUL dropped -14.54% compared to -6.22% for Nifty50.

This behavior indicates HUL is more sensitive to market movements, suggesting a beta greater than 1, meaning it's more volatile than the market. A statistical beta calculation would confirm the exact risk level relative to the market.

**Beta Formula :**

$$\frac{covariance(Ri, Rm)}{variance(Rm)}$$

**=SLOPE(B3:B26,C3:C26)**

**= 1.074556987**

The beta value of 1.0746 indicates that the selected FMCG stock is slightly more volatile than the overall market. Beta measures a stock's sensitivity to market movements, with a beta of 1 signifying that the stock tends to move in line with the market. A beta above 1 suggests higher volatility, while a beta below 1 indicates lower volatility. In this case, a beta of 1.0746 means that if the market increases by 1%, the stock is expected to increase by approximately 1.07%, and if the market declines by 1%, the stock may decrease by about 1.07%. This implies that the stock carries slightly more risk compared to the market but may also offer higher returns during bullish trends. For investors with a moderate risk appetite, this stock can be a viable option as it participates actively in market movements while not being excessively volatile. However, in bearish markets, the stock may also face slightly higher downside risk.

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Graph: 1

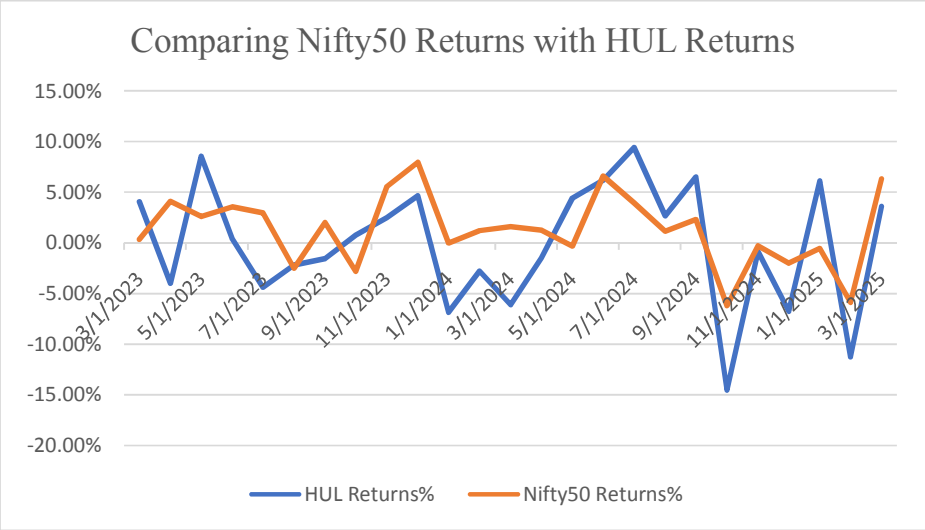


**Table 4: Indian Tobacco Company Limited Return Calculation**

| Date | Price | Change % |
|---|---|---|
| 01-03-2023 | 381.15 | 1.81% |
| 01-04-2023 | 422.94 | 10.96% |
| 01-05-2023 | 445.5 | 5.33% |
| 01-06-2023 | 451.6 | 1.37% |
| 01-07-2023 | 465.7 | 3.12% |
| 01-08-2023 | 439.7 | -5.58% |
| 01-09-2023 | 444.4 | 1.07% |
| 01-10-2023 | 428.4 | -3.60% |
| 01-11-2023 | 435.8 | 1.73% |
| 01-12-2023 | 462.1 | 6.03% |
| 01-01-2024 | 441.55 | -4.45% |
| 01-02-2024 | 406.3 | -7.98% |
| 01-03-2024 | 428.35 | 5.43% |
| 01-04-2024 | 435.65 | 1.70% |
| 01-05-2024 | 426.45 | -2.11% |
| 01-06-2024 | 424.9 | -0.36% |
| 01-07-2024 | 495.35 | 16.58% |
| 01-08-2024 | 501.9 | 1.32% |
| 01-09-2024 | 518.15 | 3.24% |
| 01-10-2024 | 462.41 | -10.76% |
| 01-11-2024 | 451.01 | -2.47% |
| 01-12-2024 | 457.54 | 1.45% |
| 01-01-2025 | 447.5 | -2.19% |
| 01-02-2025 | 395 | -11.73% |
| 01-03-2025 | 408.35 | 3.38% |

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ITC showed moderate volatility over the two-year period. The stock saw strong early gains, particularly in April 2023 (10.96%) and July 2024 (16.58%), indicating bullish investor sentiment. However, it also experienced notable corrections, including a sharp fall in February 2025 (-11.73%) and October 2024 (-10.76%). Despite intermittent recoveries, the stock's overall trend reflects cyclical fluctuations with brief rallies followed by corrections, suggesting moderate risk and sensitivity to market or sectoral dynamics.

**Table 5: Calculation of Descriptive Statistics of Indian Tobacco Company Limited**

| | |
|---|---|
| Mean | 0.004783333 |
| Standard Error | 0.012942291 |
| Standard Deviation | 0.063404016 |
| Sample Variance | 0.004020069 |
| Kurtosis | 1.010867857 |
| Skewness | 0.276604354 |
| Range | 0.2831 |
| Minimum | -0.1173 |
| Maximum | 0.1658 |
| Sum | 0.1148 |
| Count | 24 |
| Confidence Level(95.0%) | 0.026773168 |

The dataset provides key statistical insights, likely related to financial returns. The mean return (0.00478) indicates a slight positive gain, while the median (0.01345) being higher suggests a right-skewed distribution. The standard deviation (0.0634) highlights significant volatility, meaning returns fluctuate considerably. A positive skewness (0.2766) implies more frequent small gains than losses. Kurtosis (1.01) is close to normal, indicating no extreme tail events. The dataset spans a range of 0.2831, with returns varying between -0.1173 (minimum) and 0.1658 (maximum), showing potential downside risks. The 95% confidence level (±0.0268) suggests that the true mean likely falls within this range. With 24 observations, results are moderately reliable but could be influenced by outliers. The standard error (0.01294) signifies uncertainty in the mean estimate. While the dataset suggests potential for gains, the volatility and downside risks require further analysis before making investment decisions. Additional metrics like Beta and correlation may enhance the risk-return assessment.

**Table 6: Indian Tobacco Company Limited and Nify50 - Beta Calculation**

| Date | ITC Returns % | Nifty50 returns% |
|---|---|---|
| 01-03-2023 | 1.81% | 0.32% |
| 01-04-2023 | 10.96% | 4.06% |
| 01-05-2023 | 5.33% | 2.60% |
| 01-06-2023 | 1.37% | 3.53% |
| 01-07-2023 | 3.12% | 2.94% |
| 01-08-2023 | -5.58% | -2.53% |
| 01-09-2023 | 1.07% | 2.00% |
| 01-10-2023 | -3.60% | -2.84% |
| 01-11-2023 | 1.73% | 5.52% |
| 01-12-2023 | 6.03% | 7.94% |
| 01-01-2024 | -4.45% | -0.03% |
| 01-02-2024 | -7.98% | 1.18% |

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| | | |
|---|---|---|
| 01-03-2024 | 5.43% | 1.57% |
| 01-04-2024 | 1.70% | 1.24% |
| 01-05-2024 | -2.11% | -0.33% |
| 01-06-2024 | -0.36% | 6.57% |
| 01-07-2024 | 16.58% | 3.92% |
| 01-08-2024 | 1.32% | 1.14% |
| 01-09-2024 | 3.24% | 2.28% |
| 01-10-2024 | -10.76% | -6.22% |
| 01-11-2024 | -2.47% | -0.31% |
| 01-12-2024 | 1.45% | -2.02% |
| 01-01-2025 | -2.19% | -0.58% |
| 01-02-2025 | -11.73% | -5.89% |
| 01-03-2025 | 3.38% | 6.30% |

**Beta formula:**

$$\frac{covariance(Ri, Rm)}{variance(Rm)}$$

**= SLOPE (B3:B26,C3:C26) =1.229586645**

A beta value of 1.2296 indicates that the stock is more volatile than the overall market. Beta measures a stock's sensitivity to market movements, with the market benchmark (such as the Nifty 50 or S&P 500) assigned a beta of 1. A beta above 1 implies that the stock tends to move more sharply in response to market changes. Specifically, a beta of 1.2296 suggests that if the market increases by 1%, the stock is expected to rise by approximately 1.23%, and if the market declines by 1%, the stock is likely to fall by 1.23%. This heightened sensitivity implies higher risk, but it also offers the potential for greater returns in bullish markets. Investors seeking aggressive growth may find such a stock attractive, whereas risk-averse investors may consider it too volatile. The stock's performance is strongly influenced by market trends, indicating it is highly market-dependent and reactive to overall economic and financial conditions.

**Graph: 2**

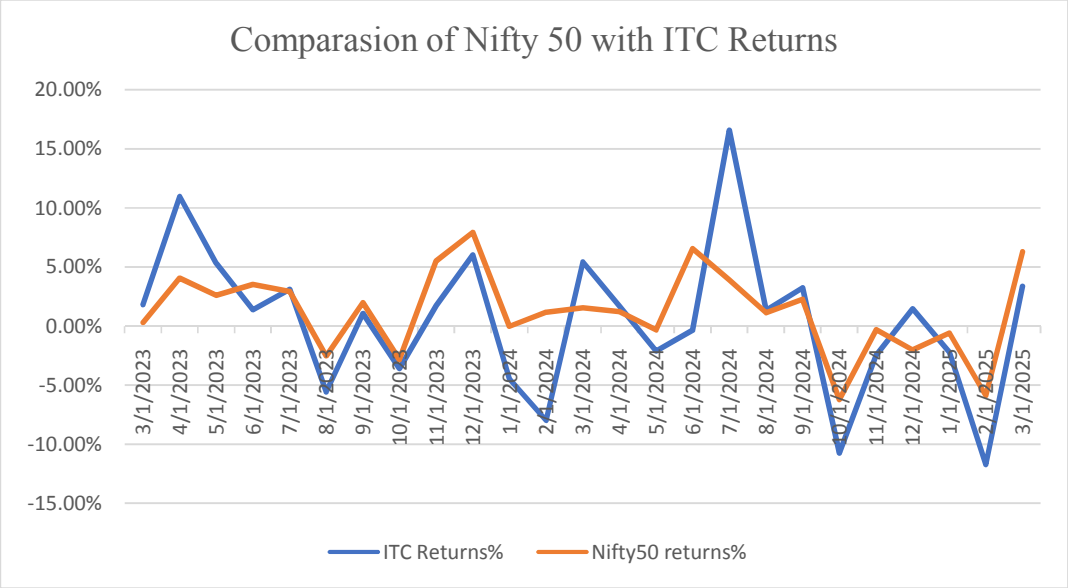

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**Table 7: Nestle company Limited Return Calculation**

| Date | Price | Change % |
|---|---|---|
| 01-03-2023 | 1,970.45 | 5.54% |
| 01-04-2023 | 2,176.14 | 10.44% |
| 01-05-2023 | 2,167.31 | -0.41% |
| 01-06-2023 | 2,289.43 | 5.63% |
| 01-07-2023 | 2,255.33 | -1.49% |
| 01-08-2023 | 2,198.64 | -2.51% |
| 01-09-2023 | 2,250.69 | 2.37% |
| 01-10-2023 | 2,423.48 | 7.68% |
| 01-11-2023 | 2,423.61 | 0.01% |
| 01-12-2023 | 2,658.03 | 9.67% |
| 01-01-2024 | 2,506.00 | -5.72% |
| 01-02-2024 | 2,596.20 | 3.60% |
| 01-03-2024 | 2,622.35 | 1.01% |
| 01-04-2024 | 2,507.40 | -4.38% |
| 01-05-2024 | 2,354.90 | -6.08% |
| 01-06-2024 | 2,551.65 | 8.35% |
| 01-07-2024 | 2,456.35 | -3.73% |
| 01-08-2024 | 2,500.75 | 1.81% |
| 01-09-2024 | 2,689.95 | 7.57% |
| 01-10-2024 | 2,262.95 | -15.87% |
| 01-11-2024 | 2,234.65 | -1.25% |
| 01-12-2024 | 2,170.05 | -2.89% |
| 01-01-2025 | 2,313.20 | 6.60% |
| 01-02-2025 | 2,189.65 | -5.34% |
| 01-03-2025 | 2,243.45 | 2.46% |

Nestlé India experienced notable volatility over the two-year period. It showed strong gains early on, particularly in April 2023 (10.44%) and December 2023 (9.67%). However, 2024 saw sharp corrections, with the steepest drop in October 2024 (-15.87%). While brief recoveries occurred (e.g., June 2024: 8.35%, January 2025: 6.60%), overall returns reflected alternating phases of growth and decline, indicating moderate risk with sensitivity to market and sectoral changes.

**Table 8: Calculation of Descriptive Statistics of Nestle company:-**

| | |
|---|---|
| Mean | 0.007304 |
| Standard Error | 0.012638 |
| Standard Deviation | 0.061913 |
| Sample Variance | 0.003833 |
| Kurtosis | 0.699697 |
| Skewness | -0.52457 |
| Range | 0.2631 |
| Minimum | -0.1587 |
| Maximum | 0.1044 |

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| | |
|---|---|
| Sum | 0.1753 |
| Count | 24 |
| Confidence Level(95.0%) | 0.026144 |

The statistical analysis of the dataset comprising 24 observations reveals a moderate level of return with a mean of 0.0073, indicating slightly positive average performance. The median (0.0051) being lower than the mean, along with a negative skewness (-0.5246), suggests a mild asymmetry with a tendency toward negative returns. The standard deviation (0.0619) reflects a moderate degree of volatility or risk associated with the returns. Furthermore, the kurtosis value (0.6997) indicates a flatter distribution compared to a normal curve, implying fewer extreme returns. The range of 0.2631 and the minimum return of -0.1587 show that while some returns were significantly negative, the maximum return reached 0.1044. With a 95% confidence interval of ±0.0261, the true mean return is expected to lie within a relatively narrow band around the sample mean. Overall, the dataset reflects modest average returns with moderate risk and a slight inclination toward negative outliers, which should be considered in investment decisions.

**Table 9: Nestle Company Limited and Nify50 - Beta Calculation:-**

| Date | Nestle Returns% | Nifty50 returns% |
|---|---|---|
| 01-03-2023 | 5.54% | 0.32% |
| 01-04-2023 | 10.44% | 4.06% |
| 01-05-2023 | -0.41% | 2.60% |
| 01-06-2023 | 5.63% | 3.53% |
| 01-07-2023 | -1.49% | 2.94% |
| 01-08-2023 | -2.51% | -2.53% |
| 01-09-2023 | 2.37% | 2.00% |
| 01-10-2023 | 7.68% | -2.84% |
| 01-11-2023 | 0.01% | 5.52% |
| 01-12-2023 | 9.67% | 7.94% |
| 01-01-2024 | -5.72% | -0.03% |
| 01-02-2024 | 3.60% | 1.18% |
| 01-03-2024 | 1.01% | 1.57% |
| 01-04-2024 | -4.38% | 1.24% |
| 01-05-2024 | -6.08% | -0.33% |
| 01-06-2024 | 8.35% | 6.57% |
| 01-07-2024 | -3.73% | 3.92% |
| 01-08-2024 | 1.81% | 1.14% |
| 01-09-2024 | 7.57% | 2.28% |
| 01-10-2024 | -15.87% | -6.22% |
| 01-11-2024 | -1.25% | -0.31% |
| 01-12-2024 | -2.89% | -2.02% |

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| | | |
|---|---|---|
| 01-01-2025 | 6.60% | -0.58% |
| 01-02-2025 | -5.34% | -5.89% |
| 01-03-2025 | 2.46% | 6.30% |

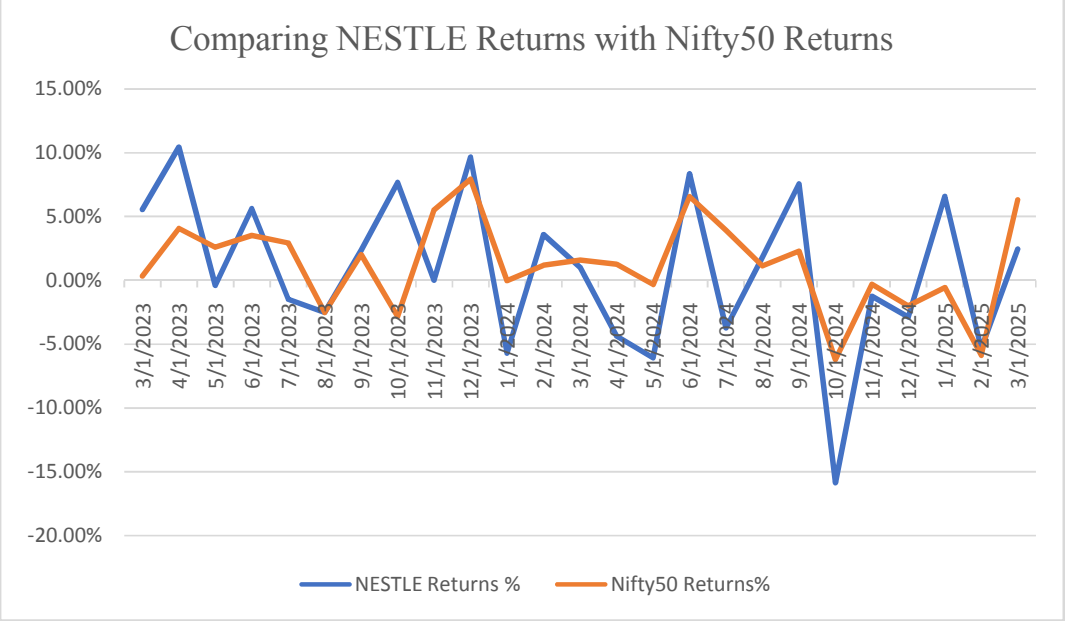
**Beta formula :-**

$$\frac{covariance(Ri, Rm)}{variance(Rm)}$$

**==SLOPE(B3:B26,C3:C26)**
**=1.026695663**

**INTERPRETATION:**
A beta value of 1.0267 indicates that the stock is slightly more volatile than the overall market. Beta measures a stock's sensitivity to market movements, with the market itself having a beta of 1. A beta greater than 1 suggests that the stock's price tends to move more than the market. Specifically, a beta of 1.0267 means that for every 1% change in the market index, the stock is expected to change by approximately 1.0267%. This implies a slightly higher risk, but potentially higher returns as well. The stock tends to follow market trends closely, but with marginally greater intensity. Investors with moderate risk tolerance may find such a stock suitable, as it neither deviates drastically from market movements nor remains unaffected. However, during periods of market downturns, the stock could incur slightly more losses than the overall market. Conversely, in bullish conditions, it may yield marginally higher gains. Therefore, it is moderately aggressive in nature, reflecting near-market average risk with slight amplification

**Graph: 3**




## VI. FINDINGS

- The mean return was slightly negative (-0.003), indicating weak performance over the two-year period.
- The standard deviation was 6.14%, reflecting moderate volatility.
- Skewness was negative (-0.47), showing more frequent negative returns, suggesting downside risk.

- Beta was 1.0746, indicating that HUL is slightly more volatile than the market. It tends to amplify both market gains and losses.
- Large losses in October 2024 (-14.54%) and February 2025 (-11.28%) significantly impacted overall performance.
- The mean return was positive (0.00478), showing consistent performance with moderate gains.
- The standard deviation was 6.34%, indicating moderate-to-high volatility.
- Skewness was slightly positive (0.27), indicating a slight bias toward gains.
- Beta was 1.2296, suggesting it is more volatile than both HUL and the broader market.
- Significant upside in July 2024 (16.58%) balanced losses in October 2024 (-10.76%) and February 2025 (-11.73%).
- The mean return was positive (0.0073), indicating relatively better average monthly performance.
- Standard deviation was 6.19%, showing moderate volatility.
- Skewness was negative (-0.52), highlighting a tendency toward occasional significant negative returns.
- Beta was 1.0267, suggesting that Nestlé stock closely mirrors the market but with slightly higher sensitivity.
- Steep decline observed in October 2024 (-15.87%) underscores the need for caution despite otherwise stable performance.
- All three stocks had beta values greater than 1, meaning they are more sensitive to market changes than the Nifty50.
- ITC had the highest beta, and thus the highest market-related risk.
- Nestlé India had the highest mean return, making it more attractive from a returns perspective, despite the downside risk.
- HUL showed weaker returns and higher skewness toward losses, indicating a relatively cautious investment option.

## VII. CONCLUSION

The present study aimed to evaluate the risk-return dynamics of selected FMCG stocks—Hindustan Unilever Limited (HUL), Indian Tobacco Company (ITC), and Nestlé India—over a 24-month period from March 2023 to March 2025. Using monthly return data, the study employed descriptive statistical measures and beta analysis to assess the volatility, performance, and market sensitivity of each stock relative to the benchmark index, Nifty50.

The findings reveal that while all three stocks demonstrated moderate to high volatility, their performance patterns varied significantly. Nestlé India exhibited the highest average return with moderate volatility and market sensitivity, making it a relatively attractive investment option. ITC, despite being the most volatile stock with the highest beta (1.2296), offered strong upside potential, particularly appealing to risk-seeking investors. Conversely, HUL, though a trusted brand, showed slightly negative average returns with noticeable downside risk and frequent negative returns, making it less favorable for short-term or aggressive investors. The analysis also highlighted that beta values for all selected stocks exceeded 1, indicating a stronger than market response to economic and financial shifts. Therefore, these FMCG stocks, while often perceived as defensive, may not always provide insulation during downturns and require active monitoring and strategic allocation.

In conclusion, the study reinforces the importance of quantitative risk-return assessment in investment decision-making. Investors should not rely solely on brand reputation or sectoral perception but must consider statistical indicators like mean return, standard deviation, skewness, and beta to make informed choices. The insights from this study can support individual and institutional investors in portfolio diversification, risk management, and long-term wealth creation.

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