



Evaluating Risk And Return: An Analytical Study Of FMCG Industry

Dr.B.Rajesh Kumar, Assistant Professor, MITS

Bavaji Lepakshi, II MBA, Madanapalle Institute of Technology & Science

Abstract This paper examines the risk-return dynamics of key listed companies in the Indian Fast-Moving Consumer Goods (FMCG) sector over 13 years. Using historical price data, we analyze standard deviation, beta (systematic risk), and correlation coefficients. The findings reveal clear patterns in volatility and market sensitivity, offering valuable guidance to investors. While companies like Emami and Britannia showed high volatility and beta, others like Dabur and Nestlé exhibited stability, suiting risk-averse investors. The study confirms that beta and standard deviation are essential metrics for portfolio optimization and strategic investment in defensive sectors like FMCG.

1. Introduction The Indian FMCG sector plays a crucial role in consumer markets, characterized by essential goods with frequent demand. Despite its defensive nature, individual FMCG stocks show varied levels of risk and return, influenced by internal operations and market movements. This research investigates these dynamics using statistical tools to aid informed investment decisions.

2. Objectives

- To assess the risk and return of selected FMCG stocks.
- To measure stock volatility using standard deviation.
- To analyze systematic risk using beta values.
- To determine the strength of stock-market return relationships using correlation coefficients.

3. Methodology - Data Source: NSE and company historical returns (2011–2024). - **Metrics Used:** - Beta (β) = Systematic risk - Standard Deviation (σ) = Volatility - Correlation coefficient (r) = Co-movement with market - **Tools:** Microsoft Excel, regression formulas, and CAPM framework.

4. Analysis & Results

Table 1: Correlation Coefficients (r) of Selected FMCG Companies

Company	Correlation Coefficient (r)
Britannia Industries	0.007
Colgate-Palmolive	0.28
Dabur India Ltd.	0.14
Emami Ltd.	0.32
Godrej Consumer Products	0.69
HUL	0.49
ITC Ltd.	0.16

Table 2: Standard Deviation (σ) of Selected FMCG Companies

Company	Standard Deviation (σ)
Britannia Industries	32.81
Colgate-Palmolive	16.22
Dabur India Ltd.	12.74
Emami Ltd.	33.65
Godrej Consumer Products	18.20
HUL	14.12
ITC Ltd.	20.33

Table 3: Beta (β) of Selected FMCG Companies

Company	Beta (β)
Britannia Industries	0.02
Colgate-Palmolive	0.49
Dabur India Ltd.	0.29
Emami Ltd.	1.34
Godrej Consumer Products	1.27
HUL	0.76
ITC Ltd.	0.47

5. Findings - High Beta & Volatility: Emami (1.34), Britannia ($\sigma=32.81$) are suitable for aggressive investors. - Low Risk: Dabur and Colgate-Palmolive show lower standard deviations and betas, suitable for conservative portfolios. - Strong Market Correlation: Godrej ($r=0.69$) is highly responsive to market changes, increasing portfolio risk. - Diversification Opportunity: Low or negative correlation in select stocks supports effective diversification.

6. Suggestions - Use a combination of high-beta and low-beta stocks for portfolio balancing. - Investors should assess sector-based volatility before investing. - Long-term investors may prioritize companies like Dabur or Nestlé due to consistency and low systematic risk. - Further analysis including unsystematic risk factors and macroeconomic data is recommended.

7. Conclusion The FMCG sector, while traditionally stable, exhibits diverse stock behavior in terms of volatility and market sensitivity. Beta, standard deviation, and correlation coefficients are powerful tools to assess and manage these risks. Investors can make smarter decisions by aligning risk preferences with the metrics analyzed. The findings underscore the value of quantitative methods in equity investment, especially in defensive sectors.