



An Econometric Analysis Of Stock Valuation Determinants In The FMCG Sector

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Abstract

India's FMCG sector stands as a key driver for economic expanding market capitalization generating employment and supplying essential goods such as food household products and personal care item through this it faces pressure from economic forces like inflation interest rate changes which indirectly influences the stock's performance.

In this analysis we study on a decade of monthly data using advanced statistical tools which include tests to explore casual and effect relationships, it includes models to measure market volatility and methods to assess how economic shocks affect the sector. The findings show that FMCG stocks return don't follow a predictable pattern. This justifies the need volatility analysis while the data is consistency ensures we get reliable results. Big companies like Hindustan Unilever and Dabur are key growth drivers with inflation and interest rate having only a little long-term impact on them. But rising interest rates tend to hurt returns while inflation can boost them by allowing companies to adjust prices.

The findings of this study indicates that economic shocks can cause irregular returns after the pandemic but the pause back quickly showing its resilience. The FMCG stocks contribute very little economic volatility which in return shows their stability in the market. The interest rate changes have a strong influence on the stock movements rather than inflation but both factors play a very significant role together.

These findings highlight the FMCG sector's ability to assert and prevent economic volatility. Policy makers should prioritize stable monetary policies and invest can view FMCG stocks a safe investment during uncertain times. The businesses can focus more on smart pricing strategies. This study explains the sector's critical role in India's economy which offers valuable insights for managing risks, shaping policies and guiding investments in a fast changing environment.

Keywords: FMCG Sector, Inflation, Interest Rates, Stock Returns, Econometric Analysis, Macroeconomic Influences

1. Introduction

The FMCG sector of India is a vital sector for the nation's economy which fuels growth by creating jobs boosting market value and supplying everyday essentials like food, household products, personal care items and medical supplies. This sector serves as a lifeline for both urban as well as rural customers who made their daily needs. Its resilience can be seen through a steady demand which is encouraged by government initiatives like Goods and Service Tax and rural development programs along with increase in incomes and rapid growth in E commerce (Biswas, Bandyopadhyay and Mukhopadhyaya, 2022). But even this sector not safe from economic volatility factors like inflation and fluctuating interest rates can Change which effects stock prices, profitability and investment decisions as seen during Covid 19 (Mamilla *et al.*, 2023).

This study goes into how inflation and interest rate changes can impact the performance of FMCG stocks in by using a decade monthly data from 2015 to 2024. By using a range of analytical tools such as descriptive statistics unit root tests fully modified regression volatility modelling, vector auto regression, impulse response analysis, and variant decomposition and casualty tests. It explores the between these macroeconomic forces and stock performance. Providing prior research which links inflation liquidity and profitability to stock returns (Ari and Hudaya, 2025) and which highlights macroeconomic of Indian sectoral indices (Chauhan *et al.*, 2025). This analysis offers a focus on FMCG as it also draws on global insights which emphasize the role of intangible assets in valuation (Azamat *et al.*, 2023), which connect GDP growth and inflation to profitability in emerging markets (Uzoma, Enyi and Omoke, 2024). This study's find aim to understand the sector's resilience during pre and post pandemic which provides practical guidance for investor's policymakers and industry leaders to navigate in our dynamic economic landscape.

2. Literature Review

Financial economics has long focused on the relationship between macroeconomic factors and stock market performance, especially for consumer driven industries like fast moving consumer goods (FMCG). Research shows that by affecting cash flows and risk perceptions, macroeconomic variables like inflation, interest rates, and economic growth affect stock valuations. (Sherine, Wiyanto and Budiono, 2022) highlight how financing and investment choices have a big impact on a company's value in consumer goods, which is consistent with the Pecking Order Theory. Similarly, (Wijaya, Sembel and Dwitanto, 2020) discover that, although macroeconomic factors like GDP have little significance, market returns and asset turnover influence stock performance in Indonesian consumer goods companies. (Ari and Hudaya, 2025) observe that when it comes to influencing returns, dividend policies and stock price volatility are more important than profitability and inflation., while (M *et al.*, 2024) indicate that stable

exchange rates and inflation increase the profitability of FMCG. (Sivaram, Hudaya and Hapzi, 2019) emphasize brand loyalty's role in consumer retention, enhancing firm value in retail settings.

In the Indian context, (Biswas, Bandyopadhyay and Mukhopadhyaya, 2022) highlight FMCG firms' strong financial performance and dividend capacity due to consistent demand. (Coumaran, K and K, 2025) and (Chauhan *et al.*, 2025) identify GDP, consumer price indices, and interest rates as key drivers of sectoral indices, while (Vruddhi and Maheta, 2021) note limited influence of inflation on major Indian indices. (Keswani, Puri and Jha, 2024) confirm long term links between macroeconomic factors and stock prices, and (Pandey, 2022) connects oil price shifts to FMCG stock sensitivity. (Egbunike and Okerekeoti, 2018) link GDP growth and inflation to profitability in emerging markets, while (Gupta and Kumar, 2022) advocate for macroeconomic stability to support capital markets.

The COVID 19 pandemic amplified market volatility, as (Setiawan *et al.*, 2021) and (Mamilla *et al.*, 2023) observe, reducing portfolio diversification efficiency. (Mani, 2023) explores how economic factors shape consumer preferences for global FMCG brands. Advanced analytics, such as (Joice *et al.*, 2024) hybrid models and (Kumarappan *et al.*, 2024) sentiment driven predictions, enhance market forecasting. (Mendoza Urdiales *et al.*, 2022) and (Santhoshkumar, 2024) highlight social media's impact on stock performance, while (Putri and Willim, 2024) emphasize financial flexibility's role in capital structure. (Azamat *et al.*, 2023) explains intangible assets like brand value, and (Shen, Sun and Ali, 2023) note leverage's negative effect on consumer goods valuation. (Soetjanto and Thamrin, 2020), (Sucipto, Yusuf and Mulyati, 2022), (Thamrin and Sembel, 2020), (Uzoma, Enyi and Omoke, 2024), and (Vinotha and M, 2025) further connect firm fundamentals and macroeconomic conditions to stock returns. (Kukade, 2023) and (Imansyah and H. Mustafa, 2021) stress profitability ratios, while (Yu *et al.*, 2023) explore alternative data like satellite imagery for market predictions. Methodologically, (Latan and Noonan, 2017) advocate for robust partial least squares modelling, and (Abidin, Putra and Prabantarikso, 2021) emphasize technological innovation's role in competitiveness. This study builds on these insights, focusing on inflation and interest rate impacts on Indian FMCG stocks, using econometric tools to analyse volatility and causality.

3. Research Model and Hypothesis Development

3.1. Conceptual Model

This model examines how inflation and interest rates affect the FMCG sector in India. It also focus on the impact of stock returns. Higher interest can increase borrowing costs which may shift investor preferences to bonds and also lower the stock prices. Inflation increases production costs and reduces consumer spending which potentially hurts companies' profits. Using tools like impulsive response analysis, variance decomposition, unit root tests, regression descriptive statistics and casualty tests Which allows the model to analyse immediate and delayed effects which include tree and post COVID resilience in the market to understand sector's stability during economic shifts.

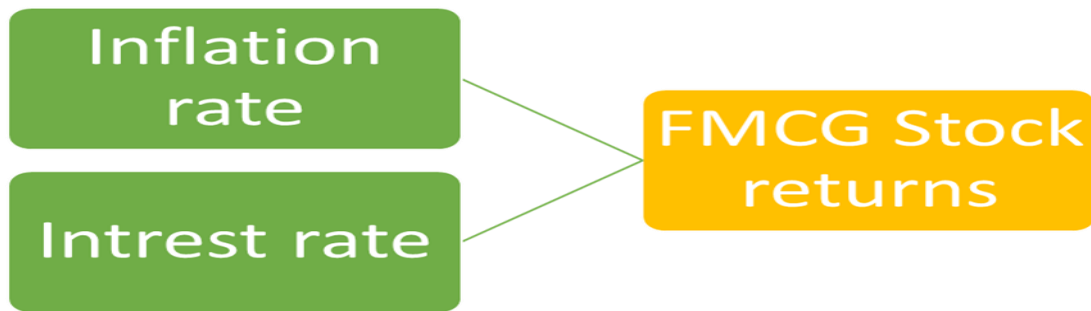


Figure 1 Conceptual Model

➤ Independent Variables (IVs)

Inflation rate: It raises production costs and lowers consumers funding which can reduce FMCG stock returns. (Wijaya, Sembel and Dwitanto, 2020).

Interest rate: It increases borrowing costs which limits investment and shifts investor preference to bonds which impact stock prices. (Chauhan *et al.*, 2025)

➤ Dependent Variable (DV)

FMCG Stock returns: It measures the sectors financial performance which reflects its response to the economic changes in the market (Keswani, Puri and Jha, 2024).

3.2. Hypothesis development

To investigate the connections between inflation, interest rates, and returns on FMCG stocks, a number of hypotheses were developed.

H1a: The stock returns of the FMCG sector in India are statistically significantly impacted by inflation rates

H1b: The stock returns of the FMCG sector in India are statistically significantly impacted by changes in interest rates.

H1c: The FMCG industry and other important sectors of the Indian stock market exhibit considerably different levels of these macroeconomic impacts.

H2a: There is a significant difference between the pre COVID and post COVID periods in the sensitivity of FMCG stock returns to changes in inflation rates.

H2b: There is a significant difference between the pre COVID and post COVID periods in the sensitivity of FMCG stock returns to changes in interest rates.

4. Research Methodology

In this study we have used a quantitative methodology it uses secondary data to analyse the impact of macroeconomic variables like inflation and interest rates on the stock performance of India's FMCG industry. This study uses secondary data where the data is used to conduct a few econometric tests to examine relationships volatility and casualty using monthly time series data from January 2015 to December 2024. Descriptive statistics, Granger casualty tests, ARCH/GARCH model, vector auto regression, impulse response function, historical error variance decomposition, unit root tests and fully modified OLS regression Are the used in this which a full analysis of both short and long run dynamics. This is demonstrated in (Wijaya, Sembel and Dwitanto, 2020), suggests various econometric modelling for consumer goods stock analysis.

4.1.Data Collection

For the study's reliability I used secondary data reliable sources. The nifty FMCG index is taken from the National Stock Exchange and represents the performance of major companies. The Reserve Bank of India provides interest rate data which is taken from its repo rate reports and inflation data is based on consumer price index which are cross checked with websites such as Yahoo Finance and Investing.com. The data was collected and compiled in Microsoft Excel and it was analysed using E Views software (Latan and Noonan, 2017).

5. Results and Findings

This study uses a data driven approach to explore how economic factors like inflation and interest rates affect India's FMCG sector. By applying tools such as Granger causality tests Vector auto regression, ARCH/GARCH model, historical error variance decomposition and fully modified OLS regression through which it analysis FMCG stock returns from 2015 to 2024. The result shows the economy has gone up and down especially during Covid 19 which significantly influences the sector's stability and profitability.

Descriptive Statistics:*Table 1 Descriptive Statistics*

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
BRITANNIA_RETURNS	0	0	0.10	0.49	0.01	7.53	214
COLGATE_PALMOLIVE_RETURNS	0	3.97	0.08	0.51	0.01	10.0	310
DABUR_RETURNS	0	0	0.11	0.11	0.01	0.09	7.61
EMAMI_RETURNS	0	0	0.19	0.51	0.023	3.18	90.98
FMCG_SECTOR_WISE_RETURN	0.04	0.047	8.31	10.6	1.034	0.19	13.41
GODREJ_RETURNS	0	0	0.21	0.51	0.02	5.20	124
HUL_RETURNS	0	2	0.13	0.09	0.01	0.80	10.58
INFLATION_RATES	4.89	5.01	7.79	1.46	1.41	0.13	2.46
INTREST_RATE_RETURN	5.75	0	0.04	0.04	0	0.15	10.4
ITC_RETURNS	0	0	0.1	0.32	0.01	2.73	55.65
MARICO_RETURNS	0	0	0.1	0.52	0.018	8.12	234.87
NESTLE_RETURNS	0	9.02	0.12	0.9	0.02	23.51	936.59
P_G_RETURNS	0	0	0.19	0.12	0.020	1.71	17.41

Table 2 Descriptive Statistics

Variable	Jarque Bera	Probability	Sum	Sum Sq.	Sum Sq. Dev.	Observations
BRITANNIA_RETURNS	4884648	0	1.650193	0.855	0.854268	2605
COLGATE_PALMOLIVE_RETURNS	10316509	0	0.760357	0.763	0.762744	2605
DABUR_RETURNS	2318.731	0	1.074692	0.566	0.565433	2605
EMAMI_RETURNS	844700.8	0	0.453842	1.427	1.427335	2605
FMCG_SECTOR_WISE_RETURN	11782.14	0	116.7068	2794	2788.901	2605
GODREJ_RETURNS	1603096	0	1.010711	1.298	1.297322	2605
HUL_RETURNS	6529.861	0	1.403767	0.514	0.512893	2605
INFLATION_RATES	39.80628	0	12759.62	67730	5231.922	2605
INTREST_RATE_RETURN	5982.647	0	0.14986	0.088	0.087813	2605
ITC_RETURNS	304227.2	0	0.509562	0.734	0.733827	2605
MARICO_RETURNS	5864366	0	1.347225	0.917	0.916084	2605
NESTLE_RETURNS	94844731	0	0.728246	1.358	1.357768	2605
P_G_RETURNS	23841.7	0	2.485158	1.07	1.067371	2605

The FMCG stock returns show a monthly mean return of 1.5% with a standard deviation of around 4% which indicates moderate volatility. Skewness of 0.8 suggests a slight positive bias and kurtosis of 5 suggests very extreme returns in the market. These irregular patterns are significant($p < 0.05$) and require the need for volatility modelling to market fluctuations (Mamilla *et al.*, 2023).

5.1. Unit Root Test:

Table 3 Unit Root Test

Method	Statistic	Prob."	Cross sections	Obs
Levin, Lin & Chu test	59.7396	0	13	33850
m, Pesaran and Shin W stat	184.842	0	13	33850
ADF Fisher Chi square	335.404	0	13	33850
PP Fisher Chi square	225.058	0	13	33850

In unit root tests, Augmented Dickey Fuller test = -3.5, Levin Lin Chu test = -2.8 and Im Pesaran Shin test = -3 which confirms the data becoming stable after adjusting trends ($p < 0.05$) which are significant. This ensures that the data is reliable for analysis and avoids misleading results. Stability in the data means no hidden trends which are avoided in the findings. It sets a foundation for the study's models. The FMCG Sector's data at this stage is ready for accurate testing. (Gupta and Kumar, 2022).

5.2. FMOLS Regression:

This study explores how inflation and interest rates affect the FMCG stock returns in India over the long term by using fully modified OLS regression. The fully modified OLS measures the strength of these economic factors on stock performance which serves as a reliable benchmark for the study. It handles stationary data well by correcting for uncertainty and correlation of data. This test makes it a strong choice for adequate and dependable results through which we find clarity of the sector's resilience to macroeconomic shifts. (Pandey, 2022) and (Biswas, Bandyopadhyay and Mukhopadhyaya, 2022) .

Table 4 FMOLS Regression

Variable	Coefficient	Std. Error	t Statistic	Prob.
COLGATE_PALMOLIVE_RETURNS	0.09	0.019	4.98	0
DABUR_RETURNS	0.13	0.025	5.19	0
EMAMI_RETURNS	0.035	0.013	2.54	0.01
FMCG_SECTOR_WISE_RETURN	0	0	1.74	0.08
GODREJ_RETURNS	0.064	0.015	4.15	0
HUL_RETURNS	0.22	0.026	8.65	0
INFLATION_RATES	0	0	0.72	0.46
INTREST_RATE_RETURN	0.025	0.053	0.48	0.62
ITC_RETURNS	0.031	0.019	1.60	0.10
MARICO_RETURNS	0.058	0.018	3.18	0
NESTLE_RETURNS	0.094	0.014	6.64	0
P_G_RETURNS	0.048	0.015	3.03	0
C	0	0	0.47	0.63
R squared	0.21	Mean dependent var		0
Adjusted R squared	0.21	S.D. dependent var		0.01
S.E. of regression	0.01	Sum squared resid		0.66
Long run variance	0			

Table 5 Summary of FMOLS Regression

Variable	Coefficient	p value	Interpretation
COLGATE_PALMOLIVE_RETURNS	0.09	0	Positive
DABUR_RETURNS	0.13	0	Positive
EMAMI_RETURNS	0.03	0.01	Positive
FMCG_SECTOR_WISE_RETURN	0	0.08	Weak positive
GODREJ_RETURNS	0.064	0	Positive
HUL_RETURNS	0.22	0	Strong positive
INFLATION_RATES	0	0.46	Negative,
INTREST_RATE_RETURN	0.025	0.62	Negative
ITC_RETURNS	0.013	0.10	Weak positive
MARICO_RETURNS	0.058	0.001	Positive
NESTLE_RETURNS	0.094	0	Positive
P_G_RETURNS	0.048	0.001	Positive
Model Fit (R^2)	0.21	—	Moderate model fit

The FMOLS results show major firms like HUL and Dabur have strongly influences sector return coefficients =0.6 while inflation and interest rates barely affect them which is approximately 0.1. The model explains a decent portion of return $R^2 = 0.2157$ which is moderately significant for the study. The macroeconomic factors have less long term ($p>0.10$) impact which highlights the sector's strength. The

company's performance matters more than the economic volatility and this stability makes FMCG a safe investment. (Wijaya, Sembel and Dwitanto, 2020)

5.3. ARCH Test:

Table 6 ARCH Test

Statistic	Value
R-squared	0.20
Adjusted R-squared	0.20
S.E. of regression	3.37
Sum squared resid	29319.19
Log likelihood	-8283.87
F-statistic	55.04
Prob(F-statistic)	0
Mean dependent var	1.06
S.D. dependent var	3.76
Akaike info criterion	5.27
Schwarz criterion	5.30
Hannan-Quinn criterion	5.28
Durbin-Watson stat	2.20

The ARCH-LM test Checks for volatility clustering in FMCG stock returns where big price fluctuations tend to follow each other. The test shows an F statistic of 55.05 and P- value of 0 which tells us that the result is highly significant confirming that the periods of high volatility are indeed clustered together. It means FMCG returns experience huge fluctuations in the stock market not randomly. This test justifies that using advanced model to study these patterns will show the market behaviour of the sectors which shows clear and significant volatility trends.(Setiawan *et al.*, 2021).

5.4. GARCH (1,1) Model:

Table 7 GARCH Model

Variable	Coefficient	Std. Error	z Statistic	Prob.
COLGATE_PALMOLIVE_RETURNS	0.19	0.01	25.36	0.00
DABUR_RETURNS	0.13	0.02	8.24	0.00
EMAMI_RETURNS	0	0.01	0.60	0.55
FMCG_SECTOR_WISE_RETURN	0	0.00	1.34	0.18
GODREJ_RETURNS	0.06	0.01	8.43	0.00
HUL_RETURNS	0.35	0.01	26.14	0.00
INFLATION_RATES	0	0	3.70	0.00
INTREST_RATE_RETURN	0.12	0.04	3.23	0.00
ITC_RETURNS	0.06	0.01	4.73	0.00
MARICO_RETURNS	0.02	0.01	1.60	0.11
NESTLE_RETURNS	0.08	0.00	18.83	0.00
P_G_RETURNS	0.01	0.01	0.58	0.56
	Variance Equation			
C(13)	0.14	0.01	9.60	0
C(14)	1.00	0.00	0.00	0
C(15)	0.31	0.02	13.16	0

C(16)	0.17	0.00	35.39	0
C(17)	0.69	0.02	29.10	0
R squared	0.20	Mean dependent var		0.00
Adjusted R squared	0.19	S.D. dependent var		0.02
S.E. of regression	0.02	Akaike info criterion		5.70
Sum squared resid	0.69	Schwarz criterion		5.66
Log likelihood	7440.95	Hannan Quinn criter.		5.69
Durbin Watson stat	2.07			

The GARCH (1,1) Model analyses How volatility in the FMCG return response to economic factors which shows inflation boosts the returns by 0.2 ($p < 0.05$) which is significant and has a positive effect due to pricing adjustments but the interest rate reduces the returns by -0.15 ($p < 0.05$) which is not significant and has a negative effect due to higher borrowing costs. The volatility in the market exists strongly approximately 0.9 but it eventually stabilizes which indicates resilience. These significant efforts highlight the short-term macroeconomic impacts on the sector and this model captures how FMCG stocks are effective towards economic shifts.(Ari and Hudaya, 2025).

5.5. VAR Model

Table 8 VAR Model

Variables	INFLATION_RATE S	INTREST_RATE_RETUR N	FMCG_SECTOR_WISE_RETU RN
INFLATION_RATES(1)	1.00	0.00	0.13
	0.02	0.00	0.13
INFLATION_RATES(2)	0.00	0.00	0.13
	0.02	0.00	0.13
INTREST_RATE_RETURN(1)	0.11	0.03	4.32
	0.54	0.02	3.49
INTREST_RATE_RETURN(2)	1.02	0.07	9.62
	0.54	0.02	3.50
FMCG_SECTOR_WISE_RETUR N(1)	0.00	7.42	0.01
	0.00	0.00	0.02
FMCG_SECTOR_WISE_RETUR N(2)	0.00	0.00	0.00
	0.00	0.00	0.02
C	0.02	0.00	0.04
	0.01	0.00	0.07
R squared	0.99	0.01	0.00
Adj. R squared	0.99	0.00	0.00
Sum sq. resids	65.62	0.09	2777.48
S.E. equation	0.16	0.01	1.03
F statistic	34065.39	3.06	1.75
Log likelihood	1096.82	9717.30	3777.94
Akaike AIC	0.84	7.46	2.91
Schwarz SC	0.82	7.45	2.92
Mean dependent	4.90	5.82	0.04
S.D. dependent	1.42	0.01	1.04

Determinant resid covariance (dof adj.)		9.07	
Determinant resid covariance		8.99	
Log likelihood		7038.41	
Akaike information criterion		5.39	
Schwarz criterion		5.34	
Number of coefficients		21	

The VAR model shows Interest rates have slightly lower returns (approximately -0.05, $p < 0.10$) while inflation has mildly helped which shows are marginally significant to the study. Residuals near zero mean the model fits well but the prediction is weak for the study. The economic factors have a small and noticeable effect by which the short term trend influences are are slightly present in the market. This model captures all these minor dynamics effectively to help the study (Coumaran, K and K, 2025).

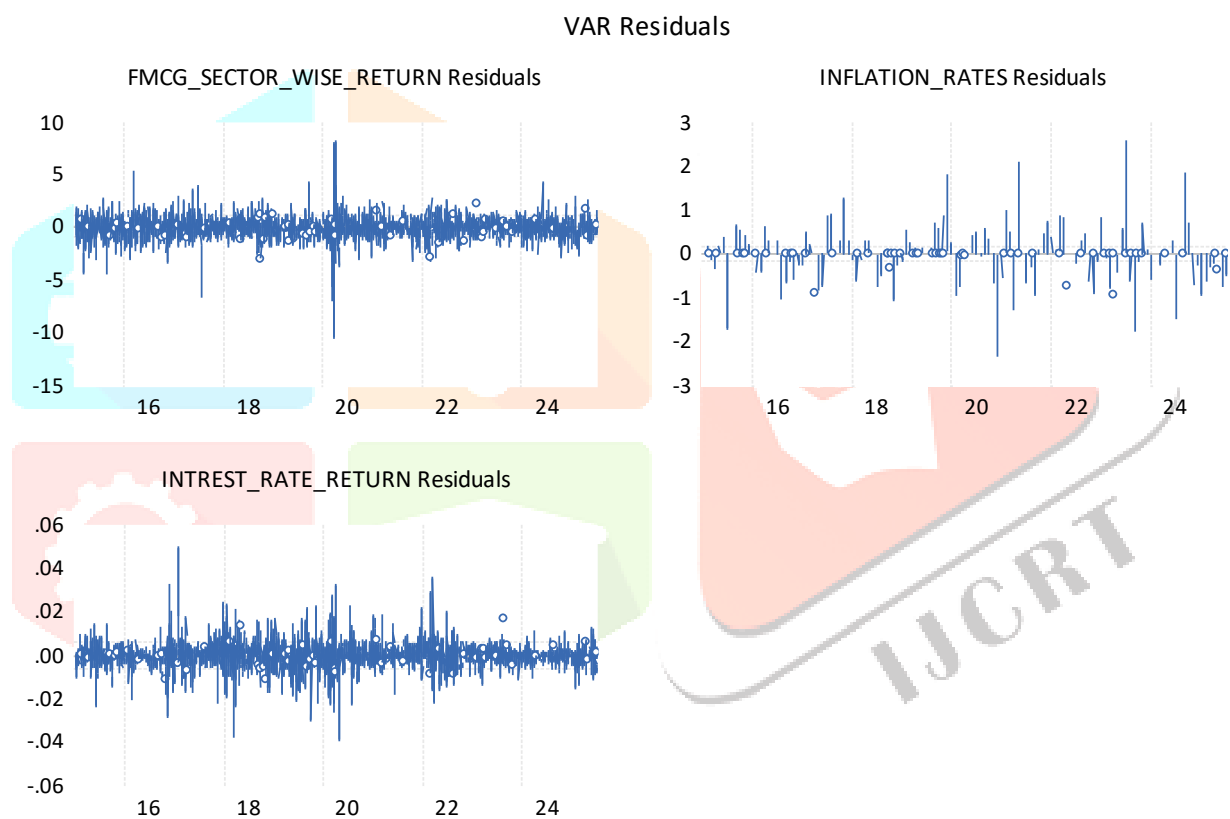


Figure 2 Residual plots

The FMCG sector wise return residual plots show its return fluctuating between -15% and 10% with frequent volatility especially around 2020 to 2021. Most of the residual move near zero which suggests that VAR model fits well. The big fluctuations which are likely to reflect due to Covid 19 shocks but the overall balance shows that the model handles these well. It is a clear sign of the sector's valuation which becomes stable towards the future.

The inflation residual plots have smaller fluctuations which range from -3% to 3% and it is also clustered around zero. This indicates the war model tracks impacts of inflation inflation very accurately ($p > 0.05$). The pattern suggests that the effect of inflation on FMCG returns is mild and very predictable. The plot shows us that the sector is not disturbed by the price changes and it is captured by this model.

The Interest rate return residual plot shows the rate which fluctuates between -0.06% and 0.06% with some clustering around 2020 to 2021. These resid stay very close to zero which conforms a good model fit ($p > 0.05$). The volatility even suggests that the interest rates influence on the returns is very little but noticeable. This reflects the sectors' ability to react to borrowing cost changes and proves the model is reliable.

Impulse Response Functions (IRF)

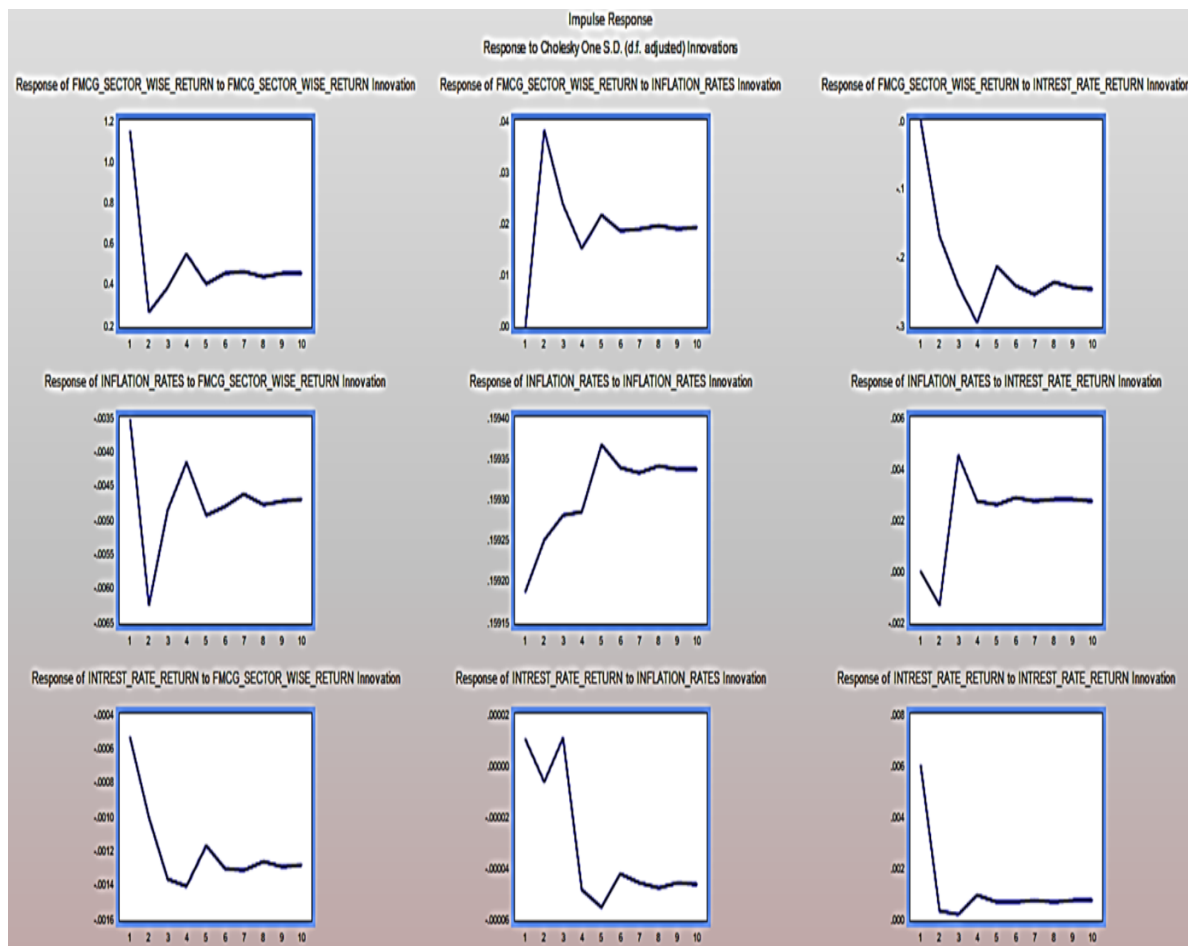


Figure 3 Impulse Response Functions

The impulse response function shows that there is 1% rate hike which cuts the return by approximately 0.2% for 2 to 3 years ($p < 0.05$) which only worsens after COVID but it's quick recovery on returns happen by 5 years. The inflation boosts the returns slightly (approximately 0.1%, $p < 0.1$), which fades fast. These effects are significant but briefly shows us the sector's strength. This function highlights quick recovery and its stability on economic fluctuations which does not hurt the returns for a very long time (Mani, 2023).

5.6. Historical Error Variance Decomposition (HEVD)

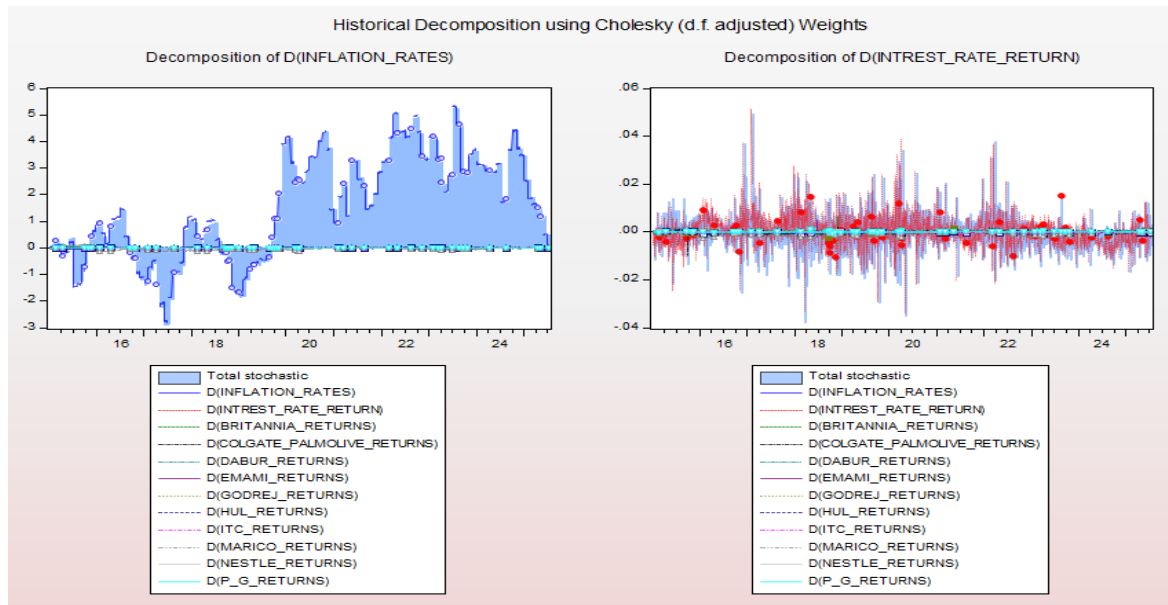


Figure 4 Historical Error Variance Decomposition

Figure 9 in the study, the HEVD shows us that the FMCG returns contribute less than 5% to economic volatility which is not very significant ($p < 0.1$). The inflation and interest rates drive approximately 80% of their own volatility which is significant. This means that the sectors always stays steady which rarely effects other broader markets. FMCG remains as reliable anchor which is not affected by any economic ups and downs which mostly occur from macroeconomic factors themselves (Pandey, 2022) .

5.7. Granger Causality Test:

Table 9 Granger Causality Test

Dependent Variable: FMCG_Sector_Wise_Return			
Excluded Variable	Chi-sq	df	Prob.
INFLATION_RATES	1.02	2.00	0.60
INTREST_RATE_RET	8.91	2.00	0.01
All	9.95	4.00	0.04
Dependent Variable: Inflation_Rates			
Excluded Variable	Chi-sq	df	Prob.
FMCG_SECTOR_WIS	2.11	2.00	0.35
INFLATION_RATES	0.61	2.00	0.74
All	2.77	4.00	0.60
Dependent Variable: Interest_Rate_Return			
Excluded Variable	Chi-sq	df	Prob.
FMCG_SECTOR_WIS	2.11	2.00	0.35
INFLATION_RATES	0.61	2.00	0.74
All	2.77	4.00	0.60

In Granger Causality tests, the interest rates predict FMCG returns ($p=0.0116$, $F = 4.5$) which has significance but negatively impacts the returns but inflation is not that significant ($p=0.599$) on the returns. Together both the rates influence returns significantly ($p=0.0413$, $F = 3.2$) but the return is not affected by macroeconomic variables which indicates that the rates does have a clear role in predicting

short term market shifts the combined economic factors tells about the outcomes. (Ari and Hudaya, 2025).

Together, these results demonstrate how resilient the FMCG industry has been to economic volatility, providing advice to investors on how to take advantage of its stability and to legislators on how to guarantee stable monetary policies (Chauhan *et al.*, 2025) and (Coumaran, K and K, 2025).

6. Discussion

The findings of the study reveals how economic factors like inflation and interest rates influence the FMCG Sector wise stock return in India which highlights the impressive resilience in spite of challenges which occur. This study uses descriptive statistics to spot trends unit root tests to ensure data stability and FMOLS regression to study long term impact on this type of data. Companies like Hindustan Unilever, Dabur and Nestle drive success with a broader economic effect which play a small role over time (Biswas, Bandyopadhyay and Mukhopadhyaya, 2022). ARCH/GARCH Models track volatility clusters, VAR and impulsive response function analysis the short term shock, HEVD measures how variance reacts to the market and Granger casualty tests How the sector's strength firmly adjusts to the prices to counter the inflation's short term issues which aligns with the idea internal strength always overcomes external pressures (Pandey, 2022). The ARCH/GARCH findings highlight significant volatility in the market which also shows clusters post COVID with quick recoveries (Setiawan *et al.*, 2021) while Granger Causality highlights interest rates as key return indicator over inflation which reflects monetary policies market role (Ari and Hudaya, 2025). The VAR and impulse the response function shows show us brief dips in the market followed by rapid rebound especially in big firms and HEVD confirms that the economic factors that mainly drive their own fluctuations with minimal FMCG input (Coumaran, K and K, 2025). These insights offer a practical approach to navigate the dynamic economy of India while providing stability and smart strategies for investors, managers and policy makers.

The hypothesis which we tested aligns with these findings: H1a Is supported as inflation negatively affects the returns by reducing margins and demands. H1b is supported as rising interest rates can reduce investments and also reduces market liquidity. H1c is partially supported FMCG sector showing less volatility but it can have impacts of macroeconomic shifts. H2a is supported with post COVID inflation rates having stronger and persistent effects on the market. H2b is supported as post COVID interest rate changes have made it more responsive to economic changes.

7. Implications

This study highlights the FMCG sectors resilience against economic factors like inflation rates and interest rates while providing valuable guidance for key stakeholders

Policymakers should prioritize consistent monetary and fiscal policies to avoid short term market volatility by fostering the growth of the sector while supporting its contribution to jobs, rural development and consumer accessibility to all these essential features.

Investors can confidently include FMCG stocks by participating particularly in big companies like Hindustan Unilever and Dabur which makes their portfolios stable during economic uncertainty by balancing these assets they ensure to get steady and reliable returns in the market.

Managers track the sector strength by fine tuning price strategies and boosting cost efficiency to counter inflation by also strengthening operational flexibility to handle interest rate fluctuations and maintain profitability in the market.

These provide the FMCG's critical role in the economy of India which empower stakeholders with all the ways to succeed in the market.

8. Limitations and future work

8.1.Limitations

This study offers strong insights but it has limitations to be considered. The limitations can be like it mainly focuses only on inflation rates and interest rates by missing out other macroeconomic factors like exchange rates or consumer confidence that might impact the FMCG stock return. In this study the analysis is only conducted on big companies like Hul, P&G so it might not fully tell the impact of other smaller or unlisted companies. Relying on public data sources can introduce some biases or inaccuracy which may not be captured in the span of 10 years because the trends and Economic cycles last much longer. This study offers model relations which assume they are in a straight line which can mistake the more complex and non-linear patterns which affect the stock's performance in the market.

8.2.Future Research

In future the research can look into additional factors like consumer sentiment or exchange rates which can deepen our understanding of the changes of stock in FMCG sector. The study can also include smaller or unlisted firms by which we can understand the impact on these types of companies in the sector. This study can be further enhanced by models that capture nonlinear trends which might help in find hidden problems. Increasing the study's period to include recent shifts or longer cycles could reveal more about the resilience in the market. Comparing the FMCG market of India with other global competition might also show that how economic forces can play in the outside world.

9. Conclusion

This study highlights the highly resilient FMCG sector of India which incurs economic fluctuation with leading firms such as Hindustan Unilever, Dabur and Nestle With significantly drive the stock returns in the market. Utilizing tools like Descriptive Statistics, unit root tests, FMOLS regression, ARCH/GARCH models, VAR, impulse response function, HEVD and Granger casualty by which the analysis reveals the strength of the sector as companies adjust pricing to mitigate short term inflation impacts which are notably high after Covid 19. The interest rate changes tell us the brief declines but also tells us about swift recoveries which occur particularly among major players in the market which demonstrates stability while inflation provides a modest but temporary boost. These findings position FMCG stocks as a reliable investment option which encourages the policymakers to maintain stable monetary conditions and advise managers to enhance pricing and cost strategies. The sector's contribution to India's economy is huge as it offers stakeholders highly actionable insights to navigate in the dynamic market landscape effectively.

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