

Strategic Leverage and Its Influence on the Valuation of FMCG Companies

¹Dr. Madhu Ruhil, ²CA Rohit Kumar, ³Dr. Aarti Suryavanshi, ⁴Dr. Latika Malhotra

¹Assistant Professor, Institute of Information Technology and Management, Janakpuri, New Delhi.

²Assistant Professor, Institute of Information Technology and Management, Janakpuri, New Delhi.

³Assistant Professor, Manav Rachna International Institute of Research and Studies, Faridabad,
Haryana

⁴Associate Professor, Institute of Information Technology and Management, Janakpuri, New Delhi.

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ABSTRACT:

Financial leverage plays a decisive role in determining a firm's profitability, risk exposure, and market valuation. This investigation explores the key factors influencing leverage and its impact on firms operating in the Fast-Moving Consumer Goods (FMCG) sector in India. By analysing the financial structures of leading FMCG companies, the research aims to identify optimal leverage strategies that support sustainable growth and enhance shareholder value.

The study reviews contemporary theories and empirical evidence on financial leverage, considering industry-specific dynamics that shape capital structure decisions in the FMCG sector. Despite the sector's stable demand and growth prospects, effective management of leverage remains essential to mitigate financial risk and improve market performance.

Using a quantitative research design, data is collected from the CMIE database. Panel data analysis is employed to assess the relationship between leverage and firm valuation. The findings provide strategic insights for corporate managers, investors, and policymakers, contributing to informed financial decision-making and capital structure optimization within the FMCG industry.

Keywords: *Capital structure, Financial leverage, Firm valuation, Panel Data.*

Introduction

Financial leverage is a considerable constituent of corporate finance, influencing a firm's profitability, risk exposure, and overall valuation (Modigliani & Miller, 1958). By utilizing an optimal mix of debt and equity, organizations can enhance shareholder returns while maintaining financial stability (Ruhil, M. et al., 2022). Conversely, excessive reliance on debt can increase financial distress and impair market perception (Myers, 1984). The decision regarding capital structure is shaped by both firm-specific attributes and industry-level dynamics, making leverage management a critical element of financial strategy (Titman & Wessels, 1988; M. Ruhil et al., 2025).

The Fast-Moving Consumer Goods (FMCG) sector, known for its high competition, rapid turnover, and sensitivity to consumer demand, presents unique financial management challenges. In this context, understanding the determinants of financial leverage becomes vital for firms striving to balance growth, risk, and market expectations. This study explores the key factors influencing leverage decisions in the FMCG industry and their consequent impact on firm valuation, profitability, and financial performance (Rajan & Zingales, 1995; Ruhil, M. & Madhukar, V., 2021).

Despite the generally strong market positioning of leading FMCG firms, managing financial leverage remains a persistent challenge in navigating profitability and risk. Prior studies have shown that leverage decisions in the FMCG sector are significantly affected by firm size, profitability, liquidity, growth opportunities, and macroeconomic conditions (Harris & Raviv, 1991; Booth et al., 2001). This research investigates how these factors influence capital structure choices across FMCG companies and assesses the relationship between leverage and valuation, drawing comparisons among peer firms.

To address these objectives, a quantitative research design is adopted, utilizing panel data analysis to examine the association between financial leverage and firm valuation. The study draws on secondary financial data from the CMIE database to ensure empirical accuracy and relevance. The findings aim to provide actionable insights for corporate managers, investors, and policymakers, facilitating evidence-based capital structure decisions (Brealey, Myers, & Allen, 2020).

This investigation seeks to answer critical questions such as: What are the primary determinants influencing leverage strategies in the FMCG sector? How does financial leverage affect firm performance and valuation? By identifying optimal leverage practices, the study contributes to long-term value creation and sustainable business growth in the FMCG industry.

Literature Review

The determining factors of capital constitution have been extensively explored in corporate finance, with researchers examining the influences that shape a firm's financing choices. The Debt-Equity Ratio (DE) serves as a fundamental indicator of capital structure, representing stability amid debt and equity funding (Ruhil, M. & Madhukar, V. 2021). The trade-off theory (Modigliani & Miller, 1958) and the pecking order theory (Myers & Majluf, 1984) underscore the importance of DE in balancing tax benefits, financial distress costs, and information asymmetry. A company's capital configuration choices are persuaded by a combination of firm-specific and industry-related factors, which impact its risk exposure and financial flexibility (Dawra, 2023).

In the second phase of the analysis, the study will evaluate the impact of Debt-Equity Ratio on Market Capitalization, which represents the firm's value as perceived by investors. Market capitalization is influenced by financial performance, leverage decisions, and investor confidence (Fama & French, 2002). Higher leverage can lead to increased firm value if debt financing enhances profitability and tax benefits (Jensen, 1986). However, excessive leverage can introduce financial distress, reducing investor confidence and, consequently, market capitalization (Modigliani & Miller, 1963).

- **H1:** *Debt-Equity Ratio considerably associated with Market Capitalization.*

Company Size has been acknowledged as a substantial aspect for capital structure determination, with larger firms typically having better access to credit markets due to lower default risk (Titman & Wessels, 1988). Sizeable companies can secure financing at favorable terms, reducing their inclusive leverage cost (Frank & Goyal, 2009). Empirical research indicates an optimistic association amid company's size and leverage, as larger firms are generally viewed as more stable and better equipped to manage debt obligations efficiently

(Booth et al., 2001). However, the influence of company's size on leverage is unclear (Ruhil, M. & Madhukar, V. 2021) as some studies also suggest a negative relationship between size and capital structure, arguing that large companies tend to retain more earnings and primarily rely on internal funds rather than long-term debt to finance their total assets, supporting these findings (Handoo & Sharma, 2014; Bazaz, 2015; Sofat & Singh, 2017; Tripathi, 2018; M. Ruhil et al., 2025).

- *H2: Company size is considerably associated with the debt-equity ratio.*

Asset **tangibility** is a pivotal determinant of capital composition, as companies with a more composition of tangible assets can leverage them as security to obtain financing. Greater asset tangibility lowers the risk for lenders, enabling firms to access debt financing at more favorable interest rates (Rajan & Zingales, 1995). Concerns with considerable tangible assets often exhibit more debt, as secured debt is more accessible than unsecured debt (Harris & Raviv, 1991). This underscores that concerns with sizable fixed assets tend to raise more long-term debt to finance their expanding sales (M. Ruhil et al., 2025).

- *H3: Asset tangibility is considerably associated with the debt-equity ratio.*

Liquidity is a key factor in capital structure decisions, as firms with strong liquidity positions often prioritize internal financing over debt (Ozkan, 2001). Aligned with the pecking order theory, concerns with high liquidity typically avoid debt financing, while those with lower liquidity often resort to leverage to meet their funding needs (Sathyanarayana et al., 2017).

- *H4: Liquidity is considerably associated with the debt-equity ratio.*

Non-Debt Tax Shields (NDTS), including depreciation and investment tax credits, can act as alternatives to the tax compensation of liability financing (DeAngelo & Masulis, 1980). Concerns with sizable NDTS may rely less on debt, as they already gain tax benefits through deductions, resulting in a lower debt-equity ratio.

- *H5: Non-debt tax shields are considerably associated with the debt-equity ratio.*

Earnings **volatility** significantly influences a firm's capacity to manage debt. Firms with highly fluctuating earnings may limit their reliance on leverage to lessen the probability of potential default and financial distress (Bradley, Jarrell, & Kim, 1984). Greater earnings volatility increases the risks associated with debt financing, prompting companies to maintain lower debt-equity ratios.

- *H6: Earnings volatility is considerably associated with the debt-equity ratio.*

Debt Service Capacity (DSC) reflects a firm's capacity to fulfil its debt commitments. Companies with strong DSC can sustain higher leverage without encountering financial distress (Opler & Titman, 1994). Lenders evaluate DSC before extending credit, and firms with robust revenue streams can manage debt effectively while ensuring timely repayments. Nonetheless, some investigations propose that as companies improve their DSC to meet fixed payment obligations, they tend to reduce their reliance on debt. This may be because such firms prefer utilizing internal funds for future investments rather than attracting lenders and

increasing debt burdens (Handoo & Sharma, 2014; Sofat & Singh, 2017; M. Ruhil et al., 2025).

- *H7: Debt service capacity is considerably associated with the debt-equity ratio.*

Profitability is an important consideration in capital formation decisiveness. The pecking order theory states that while highly profitable businesses have enough internal funds to support their operations, they often rely less on debt (Fama & French, 2002). On the other hand, according to the trade-off approach, successful businesses might use more leverage to gain from the tax advantages of interest payments (Graham, 2000).

- *H8: Profitability is considerably associated with the debt-equity ratio.*

Dividend Per Share (DPS) is another crucial determinant of capital structure. Concerns with extensive dividend distributions may have limited retained earnings, making them more reliant on external debt for financing (Lintner, 1956). Conversely, firms with stable internal cash flows and lower dividend payouts may prefer retained earnings over debt financing (Rozeff, 1982). Companies balancing dividends and leverage strategically can optimize shareholder value while managing financial risk.

- *H9: Dividend per share is considerably associated with the debt-equity ratio.*

This review highlights the key determinants influencing a firm's debt-equity ratio, providing insights into how capital structure choices are shaped by firm characteristics and financial strategies (Dawra, 2022). The study will also assess the impact of leverage on market capitalization in the second phase, helping to understand whether an optimal debt-equity ratio can enhance firm value. The research will focus on firms within the Indian Fast-Moving Consumer Goods (FMCG) sector to evaluate industry-wide financial strategies and leverage management approaches.

Objectives of the Study

1. To identify the key determinants of capital structure among firms in the Indian FMCG sector.
2. To assess the impact of capital structure on the valuation of companies within the FMCG sector.

Research Methodology

This review examines the key factors influencing a firm's debt-equity ratio, offering insights into how capital composition choices are driven by firm-specific characteristics and financial strategies. In the next phase, the study will analyse the impact of leverage on market capitalization, exploring whether an optimal debt-equity ratio can enhance firm value. The research specifically focuses on companies within the Indian Fast-Moving Consumer Goods (FMCG) sector to evaluate industry-wide financial strategies and approaches to leverage management.

- i) **Data Collection:** The study relies exclusively on secondary data, collected from the Centre for Monitoring Indian Economy (CMIE) database. Financial data related to capital

composition, liquidity, company size, profitability, asset tangibility, non-debt tax shields, volatility, debt service capacity, and dividend per share have been obtained for selected FMCG firms over the period 2010–2024. This dataset provides a comprehensive view of leverage trends and their implications on firm valuation across the FMCG sector.

- ii) **Data Analysis Techniques:** To examine the association between leverage determinants and firm valuation, the study employs descriptive statistics, correlation analysis, and panel data regression. Descriptive statistics provide a summary of key financial indicators, highlighting trends and distributions in leverage and valuation data across FMCG firms. Correlation analysis evaluates the strength and direction of relationships between the debt-equity ratio and its influencing factors. Finally, panel data regression analysis explores the causal relationship between leverage determinants and firm valuation, capturing both cross-sectional and time-series variations in the dataset.

Results and Interpretation

The examination of the descriptive statistics in Table 1 highlights significant variations in FMCG’s leverage determinants. The debt-equity ratio has a low average but exhibits high skewness and kurtosis, indicating occasional extreme values. Debt service capacity shows substantial variability, reflected in its extreme skewness and kurtosis. Dividend per share is right-skewed, suggesting that some firms pay significantly higher dividends. Liquidity and profitability are relatively stable, while volatility demonstrates high skewness and kurtosis, indicating significant market fluctuations. These variations support the application of panel data regression examination to evaluate the impression of leverage determinants on the sector’s valuation.

Table No. 1: Representing the Descriptive Statistics of Determinants of the FMCG’s Capital Structure

	D E	DSC.	DPS	LIQ.	NDTS	PROF.	SIZE	TANG.	VOL.
Mean	0.0925	677.97	60.853	1.5676	0.0354	24.835	8.8619	0.2220	0.0207
Median	0.0100	88.316	53.685	1.4100	0.0257	24.220	8.6596	0.2100	0.0119
Maximum	1.0800	31752	298.55	4.0200	0.1567	45.850	11.142	0.6200	0.1733
Minimum	0.0000	0.0000	0.0000	0.4700	0.0072	4.9900	6.8340	0.0500	0.0000
Std. Dev.	0.2044	3003.0	36.024	0.6558	0.0283	7.6316	1.0344	0.1132	0.0253
Skewness	2.8883	8.2460	2.3932	1.1538	2.0402	0.4899	0.4768	0.8876	3.2497
Kurtosis	11.069	80.223	15.012	4.3312	7.0940	3.7012	2.4554	3.8602	17.168
Jarque-Bera	615.52	38971	1045.0	44.357	208.81	9.0738	7.5365	24.322	1518.6
Probability	0.0000	0.0000	0.0000	0.0000	0.0000	0.0107	0.0231	0.0000	0.0000
Sum	13.880	10170	9128.1	235.14	5.3105	3725.3	1329.3	33.300	3.1070
Sum Sq. Dev.	6.2246	1.34	193360	64.086	0.1194	8677.9	159.43	1.9090	0.0953
Observations	150	150	150	150	150	150	150	150	150

Table 2 presents the correlation analysis, exploring the relationships between the debt-equity ratio and its key determinants. The debt-equity ratio (D_E) shows a negative correlation with profitability (-0.34), suggesting that as profitability rises, firms are less dependent on debt. Likewise, its negative correlation with liquidity (-0.20) signals that concerns with higher liquidity tend to favour internal financing over external borrowing. Additionally, size (-0.13) exhibits a slight inverse relationship, suggesting that bigger companies might have easier access to equity funding.

Conversely, tangibility (0.01) and the non-debt tax shield (0.04) display a weak positive correlation with the debt-equity proportion, proposing that concerns with greater fixed assets and tax benefits might be more likely to take on debt. Debt service capacity (-0.09) and

dividend per share (-0.06) exhibit weak negative correlations, signalling that companies with more debt obligations and dividend payouts may be more cautious about increasing leverage. Meanwhile, volatility (0.02) shows an insignificant correlation, suggesting that market fluctuations have little impact on leverage decisions.

These findings highlight that profitability, liquidity, and size are key negative determinants of leverage, while tangibility and tax benefits show a minor positive association, supporting capital structure theories that firms balance risk and financing costs when making leverage decisions.

Table No. 2: Representing the Correlation Analysis of Determinants of the FMCG's Capital Structure

	DE	DSC	DPS	LIQ.	NDTS	PROF.	SIZE	TANG.	VOL.
DE	1	-0.09505	-0.06068	-0.20405	0.041991	-0.34292	-0.13565	0.014458	0.022743
DSC	-0.09505	1	-0.07923	0.102209	-0.06553	-0.08489	-0.11496	-0.03186	-0.03066
DPS	-0.06068	-0.07923	1	-0.18881	0.117670	0.113983	0.150189	0.08044	0.449851
LIQ.	-0.20406	0.102209	-0.18881	1	-0.12713	0.430869	0.165789	-0.06419	-0.13228
NDTS	0.041991	-0.06553	0.117670	-0.12713	1	0.236098	-0.35025	0.436453	0.186548
PROF.	-0.34293	-0.08488	0.113983	0.430869	0.236098	1	0.281379	0.172421	-0.03803
SIZE	-0.13565	-0.11496	0.150189	0.165789	-0.35025	0.281379	1	0.153505	-0.13215
TANG.	0.014458	-0.03186	0.080446	-0.06419	0.436453	0.172421	0.153505	1	-0.03223
VOL.	0.022743	-0.03066	0.449851	-0.13228	0.186548	-0.03803	-0.13215	-0.03223	1

The regression results in Table 3 reveal an R-squared value of 0.3664, indicating that approximately 36.64% of the deviations in the debt-equity ratio (D_E) are illuminated by the independent influences. The F-statistic (4.4903, p-value = 0.0000) confirms the model's overall significance. However, the Durbin-Watson statistic (0.7576) suggests potential autocorrelation in the residuals.

Among the independent variables, liquidity (-0.0735, p = 0.0215) and size (-0.0970, p = 0.0437) exhibit a statistically noteworthy adverse impression on the debt-equity ratio, signifying that concerns with more liquidity and larger size tend to adopt lower leverage. Additionally, the constant term (1.0901, p = 0.0042) is statistically significant, suggesting the influence of other unobserved factors on leverage.

Other variables such as profitability, dividend per share (DPS), non-debt tax shield, tangibility, and volatility are not statistically significant, suggesting that their impact on the industry's debt-to-equity ratio is minimal.

Based on these results, the hypothesis related to liquidity (H4) and size (H2) is accepted, while other hypotheses are rejected. These findings suggest that liquidity and industry's size are key determinants of leverage decisions, while other factors may have a lesser impact on capital formation selections in the situation of Fast-Moving Consumer Goods (FMCG) sector.

Table No. 3: Representing the Panel Data Analysis of Determinants of the FMCG's Capital Structure

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DSC	-3.18E-06	5.34E-06	-0.595237	0.5527
DPS	-5.41E-05	0.000511	-0.105880	0.9158
Liquidity	-0.073551	0.031604	-2.327280	0.0215
Profitability	0.001382	0.005632	0.245364	0.8066
NDTS	-1.216308	1.395348	-0.871688	0.3850
Size	-0.097036	0.047653	-2.036295	0.0437
Tangibility	-0.056299	0.269533	-0.208875	0.8349

Volatility	0.208448	0.709789	0.293676	0.7695
C	1.090124	0.373859	2.915872	0.0042
R-squared	0.366408	Mean dependent var		0.0925
Adjusted R-squared	0.284809	S.D. dependent var		0.2044
S.E. of regression	0.172852	Akaike info criterion		-0.5606
Sum squared resid	3.943882	Schwarz criterion		-0.1993
Log likelihood	60.04445	Hannan-Quinn criter.		-0.4138
F-statistic	4.490346	Durbin-Watson stat		0.75762
Prob (F-statistic)	0.000000			

Building on the evaluation of key capital structure determinants, this study further explores the impression of capital structure, as measured by the Debt-Equity Ratio, on the market valuation of FMCG sector. Based on the outcomes of the Chow, Hausman, and Lagrange Multiplier (LM) tests, the Random Effect Panel Data Regression Model was selected. A panel data model is more appropriate than a pooled regression, according to the Chow Test. The effectiveness of the random effect model makes it superior to the fixed effect model, according to the Hausman Test. Lastly, the choice of the random effect model over the pooled OLS model was confirmed by the Lagrange Multiplier Test.

Table No. 4: Representing the Panel Data Assessment of Capital Structure and Value of FMCG

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D_E	-0.477820	0.151557	-3.152741	0.0020
C	4.718564	0.136897	34.46796	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.422595	0.6346
Idiosyncratic random			0.320662	0.3654
Weighted Statistics				
R-squared		0.063177	Mean dependent var	0.898709
Adjusted R-squared		0.056847	S.D. dependent var	0.329505
S.E. of regression		0.320003	Sum squared resid	15.15546
F-statistic		9.980742	Durbin-Watson stat	0.165344
Prob(F-statistic)		0.001918		
Unweighted Statistics				
R-squared		0.067123	Mean dependent var	4.674350
Sum squared resid		37.62145	Durbin-Watson stat	0.066607

The regression results in Table 4 signify that the debt-equity ratio (D_E) has a significant negative effect on market capitalization (LOG_MKT_CAP), with a coefficient of -0.4778 ($p = 0.0020$). This implies that a decrease in company value is linked to increased leverage, likely due to investors perceiving increased debt levels as a risk factor. Additionally, the constant term (C) is statistically significant ($p = 0.0000$), highlighting the influence of other factors on market capitalization beyond leverage.

The R-squared value (0.0632) suggests that the model explains approximately 6.32% of the variations in market capitalization, indicating that leverage alone does not fully capture the determinants of firm value. However, the F-statistic (9.98, $p = 0.0019$) confirms the overall significance of the model. The Durbin-Watson statistic (0.1653) indicates possible autocorrelation, which should be addressed in further analysis.

Based on these findings, the hypothesis (H1) that the debt-equity ratio significantly affects market capitalization is supported. The findings show that, in the case of FMCG sector, greater leverage has an adverse bearing on company value, emphasizing the need for an optimal capital structure to enhance market valuation.

Findings and Discussion

Descriptive Statistics and Correlation Analysis

The examination of the descriptive statistics highlights significant variations in leverage determinants across firms in the Indian Fast-Moving Consumer Goods (FMCG) sector. The debt-equity ratio (D_E) shows a low average but exhibits high skewness and kurtosis, indicating the presence of occasional extreme values among firms. Debt service capacity (DSC) also reflects substantial variability, as shown by its extreme skewness and kurtosis. Dividend per share (DPS) is right-skewed, suggesting that some companies distribute significantly higher dividends than others. Liquidity and profitability appear relatively stable, whereas volatility demonstrates high skewness and kurtosis, indicating pronounced market fluctuations. These variations justify the use of panel data regression analysis to evaluate the influence of leverage determinants on firm valuation within the sector.

The correlation analysis indicates that the debt-equity ratio has a negative correlation with profitability (-0.34), suggesting that more profitable FMCG firms tend to rely less on debt financing. Similarly, its negative correlation with liquidity (-0.20) implies that companies with greater internal liquidity prefer to use internal funds over external borrowing. Company size (-0.13) also exhibits a weak negative correlation, indicating that larger firms may have better access to equity markets and thus rely less on debt. Conversely, tangibility (0.01) and non-debt tax shields (NDTS) (0.04) show weak positive correlations with the debt-equity ratio, suggesting that firms with more tangible assets or tax advantages may be more inclined to utilize debt financing.

Other determinants, such as debt service capacity and dividend per share, exhibit marginally negative relationships with leverage, while volatility demonstrates an insignificant correlation, indicating that market fluctuations may not substantially influence leverage decisions. These findings are consistent with established capital structure theories and reflect how FMCG firms strategically balance risk and financing costs when determining their capital structure.

Panel Data Regression Analysis of Leverage Determinants

The regression analysis of leverage determinants reveals that the R-squared value (0.3664) suggests that approximately 36.64% of the variations in the debt-equity ratio are explained by the independent variables. The F-statistic (4.4903, p-value = 0.0000) confirms the overall significance of the model. However, the Durbin-Watson statistic (0.7576) suggests possible autocorrelation in the residuals.

Among the independent variables, liquidity (-0.0735, p = 0.0215) and size (-0.0970, p = 0.0437) have a statistically significant negative influence on the debt-equity proportion, indicating that businesses with greater liquidity and larger size prefer lower leverage. The constant term (1.0901, p = 0.0042) is statistically significant, suggesting the presence of other unobserved factors affecting leverage. Other variables such as profitability, DPS, NDTS, tangibility, and volatility are statistically negligible, indicating that their influence on the company's debt-to-equity ratio is minimal.

Based on these findings, the study confirms that liquidity (H4) and company size (H2) significantly influence leverage decisions, while the remaining hypotheses related to leverage determinants are not supported. This implies that, in the case of FMCG sector, other factors may have a negligible influence on capital structure decisions, whereas liquidity and firm size are critical.

Association of Capital construction on Firm Value

After determining the key factors influencing capital structure, the study analyzes the impression of the Debt-Equity Ratio (D_E) on FMCG's market value. The Random Effect Panel Data Regression Model was selected after conducting the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test. The Chow Test confirmed the necessity of a panel data model, the Hausman Test validated the random effect model over the fixed effect model, and the Lagrange Multiplier Test confirmed the appropriateness of the random effect model over the pooled OLS model.

The regression outcome unveil that D_E has a notable negative effect on market capitalization (LOG_MKT_CAP), with a coefficient of -0.4778 ($p = 0.0020$). This suggests that an increase in leverage reduces the firm's market value, likely because investors perceive higher debt levels as a risk factor. The constant term (C) is statistically significant ($p = 0.0000$), implying the presence of other factors influencing market capitalization beyond leverage.

The R-squared value (0.0632) suggests that the model explains approximately 6.32% of the variations in market capitalization, indicating that leverage alone does not fully capture the determinants of firm value. However, the F-statistic (9.98, $p = 0.0019$) confirms the overall significance of the model. The Durbin-Watson statistic (0.1653) suggests possible autocorrelation, which should be addressed in further analysis.

These findings support the study's hypothesis (H1) that market capitalization is significantly impacted by the debt-to-equity ratio. In the instance of Fast-Moving Consumer Goods Sector, these results demonstrate that increased leverage has a detrimental effect on firm value, highlighting the significance of preserving an ideal capital structure to raise market valuation.

Conclusion

In the context of the Indian FMCG sector, the results indicate that increased leverage tends to have a negative impact on firm valuation, emphasizing the importance of maintaining an optimal capital structure to enhance market value. The study also highlights the significant influence of liquidity and company size on leverage decisions, while factors such as profitability, dividend per share (DPS), and volatility exhibit weaker or negligible relationships. Based on these insights, FMCG firms should adopt strategic capital structure management practices that effectively balance financial risk and contribute to long-term shareholder value.

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