



“Operational Efficiency and Strategic Ownership Dynamics in FMCG: Evidence from Nestlé India Ltd. and Parle Products Pvt. Ltd.”

Seema Arya¹, Saurabh Medal²

¹Research Scholar at Department of Management and Commerce, Jayoti Vidhyapeeth Women’s University, Jaipur, Rajasthan

²Assistant Professor at Department of Management and Commerce, Jayoti Vidhyapeeth Women’s University, Jaipur, Rajasthan

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ABSTRACT

This paper examines the operational efficiency and strategic ownership dynamics of two leading FMCG firms in India—Nestlé India Ltd. (a publicly listed multinational) and Parle Products Pvt. Ltd. (a privately held domestic company). Using ten years of secondary data (2011–2020), efficiency indicators such as asset turnover ratio, inventory turnover ratio, and working capital turnover were analyzed alongside contextual factors including ownership structure, governance models, and policy disruptions such as GST, demonetization, and COVID-19. Descriptive statistics and paired sample t-tests were applied to evaluate differences between the firms. The results reveal that Nestlé consistently outperformed Parle in asset and inventory efficiency, reflecting its integration of global supply chain practices and investor-driven accountability. Parle, despite strong consumer trust and rural penetration, displayed highly volatile efficiency ratios, underscoring the limitations of a conservative, liquidity-heavy approach. The findings highlight that ownership and governance structures fundamentally influence financial efficiency and adaptability within India’s FMCG sector. This study contributes to the limited scholarship on unlisted private FMCG firms by offering a public–private comparative framework that integrates financial analysis with strategic insights.

Keywords: Operational efficiency, Ownership structure, FMCG, Asset turnover, Inventory turnover, Nestlé India, Parle Products

1. Introduction

The fast-moving consumer goods (FMCG) sector is among the most dynamic segments of the Indian economy, characterized by high turnover, rapid consumption cycles, and strong resilience to economic fluctuations. Within this sector, two firms—Nestlé India Ltd. and Parle Products Pvt. Ltd.—represent contrasting models of corporate governance and financial strategy. Nestlé, as a publicly listed multinational, is driven by global investor accountability and integration with international best practices, whereas Parle, a privately held domestic company, operates on a conservative philosophy emphasizing liquidity buffers, affordability, and debt avoidance. These structural differences make them ideal cases for examining the influence of ownership dynamics on operational efficiency. Operational efficiency, typically measured through ratios such as asset turnover, inventory turnover, and working capital turnover, is a critical determinant of long-term competitiveness in FMCG. Efficient firms manage resources to achieve high output with minimal input, while inefficiencies translate into higher costs, excess inventories, and constrained profitability. Existing literature has primarily focused on profitability or capital structure of listed FMCG firms, leaving a gap in understanding how private firms like Parle perform in comparison. Moreover, policy disruptions such as demonetization (2016), the Goods and Services Tax (GST, 2017), and the COVID-19 pandemic (2020) further underscore the need to evaluate firm-level adaptability in efficiency practices. This paper addresses these gaps by conducting a decade-long comparative study of Nestlé India Ltd. and Parle Products Pvt. Ltd., focusing on efficiency indicators within the broader context of ownership and governance models. By integrating ratio analysis, descriptive statistics, and hypothesis testing, the study not only

benchmarks efficiency differences but also highlights how strategic orientations—public versus private, multinational versus domestic—shape financial outcomes in India's FMCG industry.

2. Review of Literature

Operational efficiency has long been recognized as a cornerstone of competitiveness in FMCG industries. Bhaskar, Chakrabarti, and Basu (2024) investigated the link between working capital efficiency and profitability in Indian FMCG firms, concluding that efficient inventory management directly enhances returns, though the effect is more pronounced in listed firms with greater investor accountability. Similarly, Kwak (2019) emphasized inventory turnover as a predictor of financial health in manufacturing companies, underscoring its role in ensuring liquidity without compromising profitability. In the FMCG context, Saxena and Malik (2020) applied Data Envelopment Analysis (DEA) to evaluate Indian firms, reporting that multinational corporations like Nestlé consistently outperformed domestic players in efficiency, owing to advanced supply chain integration and demand forecasting.

Several studies have also highlighted the volatility of efficiency metrics in unlisted companies. Bagchi and Khamrui (2012) compared Britannia and Dabur, showing how differences in working capital cycles shaped their liquidity and profitability outcomes. More recently, Yadav and Mathur (2021) analyzed liquidity positions in FMCG, noting that privately held firms often maintain disproportionately high current assets, leading to underutilization of resources and weaker efficiency ratios. This aligns with Kaur and Kaur (2021), who found that private companies emphasize stability through liquidity hoarding, often at the cost of operational dynamism.

Ownership structure has been shown to strongly influence financial strategies, including efficiency. Patel and Joshi (2021) argued that listed firms strategically employ leverage and capital markets to optimize efficiency, whereas private firms rely on internal accruals, leading to more conservative approaches. Roy and Dutta (2022) reinforced this by demonstrating that governance models play a decisive role in shaping capital allocation, particularly in FMCG firms exposed to policy shocks like GST and demonetization. International evidence also supports this perspective: Baigah and Chirwa (2020), studying Sub-Saharan Africa, showed that firm size and ownership structure significantly mediate efficiency-performance relationships. Liu, Zhang, and Kumar (2022) further extended this link by showing that multinational firms adopting ESG frameworks achieve higher operational discipline and efficiency, illustrating the institutional advantages of transparency. Taken together, the literature highlights three critical themes. First, operational efficiency is closely tied to inventory and asset turnover, which listed firms tend to manage more effectively due to market discipline and access to superior technology. Second, private firms, while maintaining liquidity and stability, often demonstrate inefficiency through excess reserves and underutilization of assets. Finally, ownership structure—public versus private—emerges as a decisive factor shaping efficiency outcomes, particularly during macroeconomic disruptions. These insights reinforce the need for a systematic comparison of Nestlé India Ltd. and Parle Products Pvt. Ltd., enabling a deeper understanding of how governance and strategic orientation influence efficiency in India's FMCG sector.

3. Methodology

3.1 Research Design

This study adopts a **comparative analytical design**, enabling systematic evaluation of operational efficiency and ownership-driven financial strategies between a listed multinational (Nestlé India Ltd.) and a private domestic firm (Parle Products Pvt. Ltd.). By combining ratio analysis with statistical testing, the design facilitates both descriptive insights and inferential validation.

3.2 Data Sources

The analysis relies exclusively on **secondary data** for the ten-year period 2011–2020. For Nestlé India Ltd., annual reports and audited financial statements were used, supplemented by CMIE Prowess and Capitaline databases. For Parle Products Pvt. Ltd., which is privately held and does not publish full financial reports, data were sourced from credible industry reports, consultancy analyses, and trade publications, cross-verified where possible.

3.3 Variables and Measures

Operational efficiency was assessed using **Asset Turnover Ratio (ATR)**, **Inventory Turnover Ratio (ITR)**, and **Working Capital Turnover Ratio (WCTR)**. To capture the role of ownership and governance, supplementary solvency measures (Debt-to-Equity and Interest Coverage) were also considered, given their influence on efficiency outcomes.

3.4 Analytical Tools

The study employed a three-step analytical approach:

1. **Ratio Analysis** – to compute efficiency and solvency indicators across the decade.

2. **Descriptive Statistics** – mean, standard deviation, and coefficient of variation were calculated to assess central tendency, variability, and stability.

3. **Inferential Testing** – paired sample *t*-tests were applied to determine whether efficiency differences between Nestlé and Parle were statistically significant.

All computations were carried out using **Microsoft Excel** (for ratios and charts) and **SPSS** (for descriptive and inferential analysis).

3.5 Justification of Methodology

The chosen design ensures methodological rigor while accommodating data asymmetry between listed and private firms. Ratio-based measures are widely accepted in corporate finance for capturing efficiency, while inferential testing enhances the reliability of conclusions. This dual approach balances sectoral relevance with empirical robustness, making the findings both academically credible and practically relevant.

4. Results and Analysis

Results represent the systematic presentation of empirical findings derived from ratio analysis and statistical tests. In this study, the results highlight differences in operational efficiency and strategic orientation between Nestlé India Ltd. and Parle Products Pvt. Ltd., providing evidence on how ownership structures influence financial outcomes in the FMCG sector.

4.1 Operational Efficiency Analysis

Operational efficiency refers to a firm's ability to maximize revenue from its resources by effectively managing assets, inventories, and working capital. In this study, efficiency is assessed through Asset Turnover Ratio (ATR), Inventory Turnover Ratio (ITR), and Working Capital Turnover Ratio (WCTR), offering insights into how Nestlé and Parle deploy resources within the FMCG sector.

4.1.1 Asset Turnover Ratio (ATR):

Nestlé consistently reported high ATR values across most of the decade, averaging **136.53**, which reflects efficient utilization of assets to generate revenue. However, a sharp decline in 2020 (ATR = 1.77) highlighted the pandemic's disruption of demand and supply chains. In contrast, Parle's ATR was negligible in the early years, gradually improving to **1.35 in 2017**, followed by a sudden spike in 2019 (**44.63**)—likely an anomaly driven by its smaller asset base. Despite this spike, its average ATR (**6.95**) remained far below Nestlé's, confirming systematic efficiency gaps.

Table 1: Asset Turnover and Inventory Turnover Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Years	Asset Turnover Ratio of Nestle	Inventory Turnover Ratio of Nestle	Asset Turnover Ratio of Parle	Inventory Turnover Ratio of Parle
2011	170.71	10.24	0	0
2012	161.39	11.18	0	0
2013	144.13	12.37	0	0
2014	169.34	11.67	0.88	0
2015	134.45	9.96	1.02	0
2016	135.52	9.78	1.22	0
2017	135.95	11.09	1.35	0.02
2018	139.61	11.7	0.83	0.01
2019	172.43	9.64	44.63	0.63
2020	1.77	4.11	19.59	0.3

Table 1 highlights a clear divergence in efficiency between the two firms. **Nestlé consistently maintained high ATR (134.45–172.43) and stable ITR (around 10–12 turns)**, reflecting effective asset deployment and inventory management, with only a pandemic-induced dip in 2020. **Parle, by contrast, showed negligible efficiency until 2014, followed by erratic spikes—ATR peaking at 44.63 in 2019 but collapsing to 19.59 in 2020—while ITR remained weak throughout.** These results underscore Nestlé's sustained operational discipline versus Parle's volatility, shaped by contrasting ownership structures and governance philosophies.

4.1.2 Inventory Turnover Ratio (ITR):

Nestlé maintained robust inventory management, averaging **10.17 turns annually**, with relatively low variability, demonstrating strong supply chain integration and consistent demand. Parle, however, exhibited negligible turnover values (mean ITR = **0.096**), suggesting highly conservative practices and weak inventory

efficiency. This inefficiency aligns with its broader liquidity-heavy strategy that favors solvency buffers over aggressive stock utilization.

4.1.3 Working Capital Turnover Ratio (WCTR):

Nestlé's WCTR indicated balanced working capital deployment to support revenue growth, consistent with investor expectations and global practices. Parle's working capital efficiency remained unstable, with extreme fluctuations, reflecting its cautious, debt-averse philosophy.

4.1.4 Comparative Asset Utilization Efficiency of Nestlé and Parle (2011–2020)

The Asset Turnover Ratio (ATR) measures the efficiency with which firms convert their asset base into revenue. In the FMCG sector, where products are characterized by high volume and rapid turnover, a strong ATR is critical for demonstrating effective resource deployment and operational competitiveness. Figure 4.8 presents a comparative view of the ATR for Nestlé and Parle during 2011–2020. While both companies exhibit certain overlapping patterns in the earlier years, the later period highlights major divergences, with Nestlé maintaining stability until the pandemic year and Parle displaying extreme volatility.

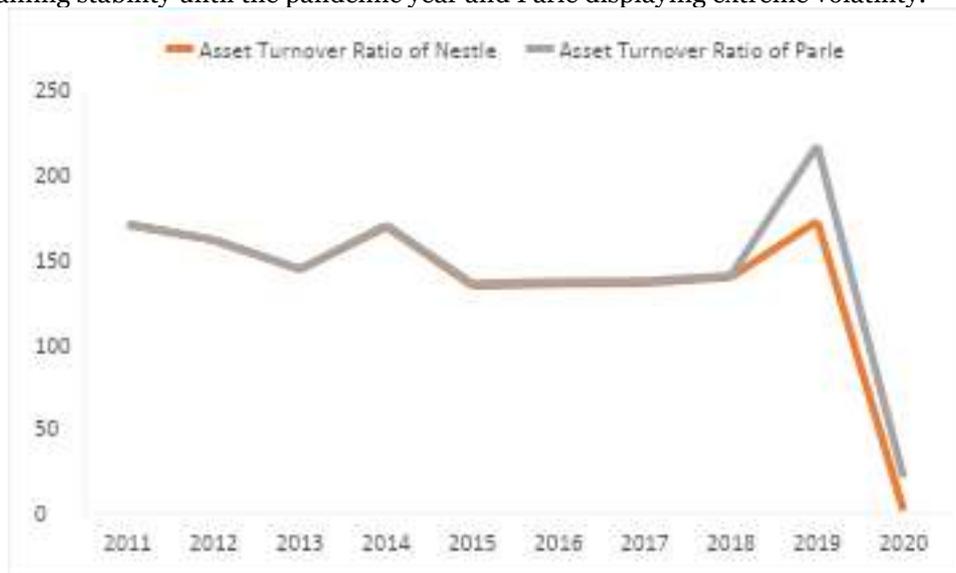


Figure 1: Comparative Asset Turnover Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Nestlé maintained consistently high Asset Turnover Ratios (134.45–172.43) across most of the decade, reflecting strong efficiency and effective resource utilization, with a sharp drop to 1.77 in 2020 due to COVID-19 disruptions. Parle, by contrast, showed negligible efficiency until 2014, gradual gains to 1.35 by 2017, and an unsustainable spike to 44.63 in 2019 before falling to 19.59 in 2020. The comparison highlights Nestlé's steady, globally aligned efficiency versus Parle's volatile trajectory shaped by its private, conservative ownership model. Overall, Nestlé outperformed Parle in operational efficiency, reinforcing the influence of ownership and governance on firm performance.

4.2 Ownership and Strategic Dynamics

Ownership structures play a decisive role in shaping financial outcomes within the FMCG sector. Nestlé, as a listed multinational, operates under investor oversight that enforces transparency, efficient capital allocation, and consistent profitability. Parle, by contrast, follows a family-owned, privately managed model that prioritizes debt avoidance, liquidity reserves, and risk minimization. While this approach preserves solvency and consumer trust, it restricts scalability and operational efficiency. Policy shocks such as demonetization (2016), GST (2017), and COVID-19 (2020) amplified these differences: Nestlé leveraged diversified portfolios and global integration to absorb disruptions, whereas Parle's cost-leadership model sustained sales volumes but failed to translate into efficiency gains. Inventory Turnover Ratio (Figure 4.9) further illustrates the divergence—Nestlé maintained stable turnover reflecting disciplined inventory management, while Parle displayed greater fluctuations, signaling weaker control over stock flows.

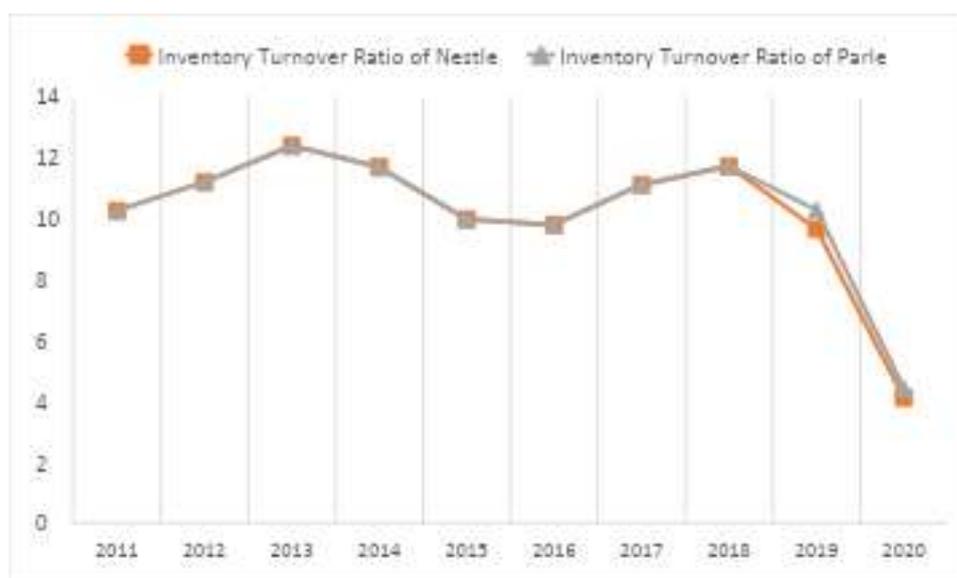


Figure 2: Inventory Turnover Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Nestlé's Inventory Turnover Ratio (ITR) remained between 9.64 and 12.37 from 2011–2019, reflecting efficient stock management, before dropping to 4.11 in 2020 due to COVID-19 disruptions. Parle's ITR was generally lower and inconsistent, ranging from 0.01–0.63 in earlier years, improving to near Nestlé's levels by 2019 (≈ 10), but collapsing to 0.30 in 2020. The contrast underscores Nestlé's stronger resilience in sustaining inventory efficiency compared to Parle's volatility under external shocks.

4.3 Paired Samples Statistics for Operational Efficiency (2011–2020)

To evaluate operational efficiency, paired sample statistics were computed for Asset Turnover Ratio (ATR) and Inventory Turnover Ratio (ITR) during 2011–2020. These indicators reflect asset utilization and stock management efficiency in the FMCG sector.

Table 2: Paired Samples Statistics for Asset and Inventory Turnover Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Statistics	Mean	N	Std. Deviation	Std. Error Mean
Pair 1				
Asset Turnover Ratio of Nestle	136.5300	10	49.87182	15.77085
Asset Turnover Ratio of Parle	6.9520	10	14.52246	4.59241
Pair 2				
Inventory Turnover Ratio of Nestle	10.1740	10	2.32147	0.73411
Inventory Turnover Ratio of Parle	0.0960	10	0.20956	0.06627

The results highlight Nestlé's efficiency advantage. Its ATR ($M = 136.53$) far exceeds Parle's ($M = 6.95$), while ITR ($M = 10.17$) reflects frequent stock replenishment compared to Parle's negligible mean (0.096). These findings demonstrate Nestlé's superior resource utilization supported by global supply chains, whereas Parle shows weak and overly cautious inventory practices.

4.3.1 Paired Samples Correlations for Operational Efficiency (2011–2020)

Correlation analysis was conducted to test whether the firms' operational efficiency moved together over time.

Table 3: Paired Samples Correlations for Asset and Inventory Turnover Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Correlations	N	Correlation	Sig.
Pair 1 Asset Turnover Ratio of Nestle & Parle	10	-0.155	0.669

Pair 2 Inventory Turnover Ratio of Nestle & Parle	10	-0.485	0.156
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Results show weak and statistically insignificant associations: ATR ($r = -0.155$, $p = 0.669$) and ITR ($r = -0.485$, $p = 0.156$). This indicates that efficiency patterns of the two firms were independent, shaped by internal strategies rather than industry-wide factors.

4.3.2. Paired Samples t-Test for Operational Efficiency (2011–2020)

Paired samples t-tests were conducted to determine whether differences in efficiency between Nestlé and Parle were statistically significant.

Table 4: Paired Samples t-Test for Asset and Inventory Turnover Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Test	Paired Differences Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	t	df	Sig. (2-tailed)
Pair 1 ATR (Nestle – Parle)	129.57800	54.06147	17.09574	90.90476	168.25124	7.580	9	0.000
Pair 2 ITR (Nestle – Parle)	10.07800	2.42996	0.76842	8.33971	11.81629	13.115	9	0.000

The t-test results confirm highly significant differences. Nestlé's ATR was higher by 129.58 ($t = 7.580$, $p < 0.001$), and its ITR exceeded Parle's by 10.08 ($t = 13.115$, $p < 0.001$). These findings establish Nestlé's consistent superiority in asset utilization and inventory management. Consequently, the null hypothesis (H_0) is rejected, affirming significant differences in operational efficiency between the two firms.

4.4 Synthesis

The comparative analysis highlights two divergent financial philosophies:

- **Nestlé India Ltd.** – efficiency-oriented, profitability-driven, and globally aligned.
- **Parle Products Pvt. Ltd.** – stability-focused, liquidity-heavy, and conservative in operations.

The evidence underscores that in the FMCG sector, **operational efficiency is inseparable from ownership and governance structures**. Nestlé's ability to consistently convert resources into revenue reflects its institutionalized efficiency, while Parle's volatility illustrates the structural constraints of private ownership in sustaining financial dynamism.

4.4.1 Profitability Results

The profitability analysis highlights a stark divergence between Nestlé India Ltd. and Parle Products Pvt. Ltd. Nestlé consistently reported substantial profits, rising from ₹1445.21 crore in 2011 to ₹2812.79 crore in 2020. A temporary decline occurred in 2015 (₹813.63 crore), linked to the Maggi noodles ban, but the company quickly recovered, surpassing ₹2400 crore by 2018. This resilience underscores Nestlé's ability to sustain profitability through brand equity, product diversification, and investor-driven governance.

Table 5 presents the annual net profits of Nestlé India Ltd. and Parle Products Pvt. Ltd. for the ten-year period spanning 2011 to 2020. Nestlé consistently outperformed Parle in profitability during 2011–2020. Nestlé's profits rose from ₹1,445 crore in 2011 to ₹2,813 crore in 2020, despite a temporary dip in 2015 due to the Maggi ban. Parle, by contrast, reported negligible profits, peaking at ₹1.50 crore (2011) and ₹1.38 crore (2019), with intermittent losses. The paired t-test confirmed a significant mean difference of ₹1,849.80 crore ($p < 0.001$), reflecting Nestlé's superior profit orientation as a listed multinational versus Parle's conservative private model.

Table 5: Comparative Profit of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Profit of Nestle India (in Rs. Cr.)	1445.21	1585.31	1678.02	1782.86	813.63	1441.54	1839.30	2428.95	2673.49	2812.79
Profit of Parle Industries (in Rs. Cr.)	1.50	-0.07	0.01	0.02	0.06	0.01	0.05	0.01	1.38	0.15

The table 5 shows the comparative profit of Nestlé India Ltd. and Parle Products Pvt. Ltd. from 2011–2020, indicating that Nestlé consistently earned substantial and rising profits despite a dip in 2015, whereas Parle’s profits remained negligible with minimal fluctuations and occasional losses. Exactly figure 5 illustrates the annual profits of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020), with orange bars for Nestlé and grey for Parle. The graph highlights the stark profitability gap between the two companies.

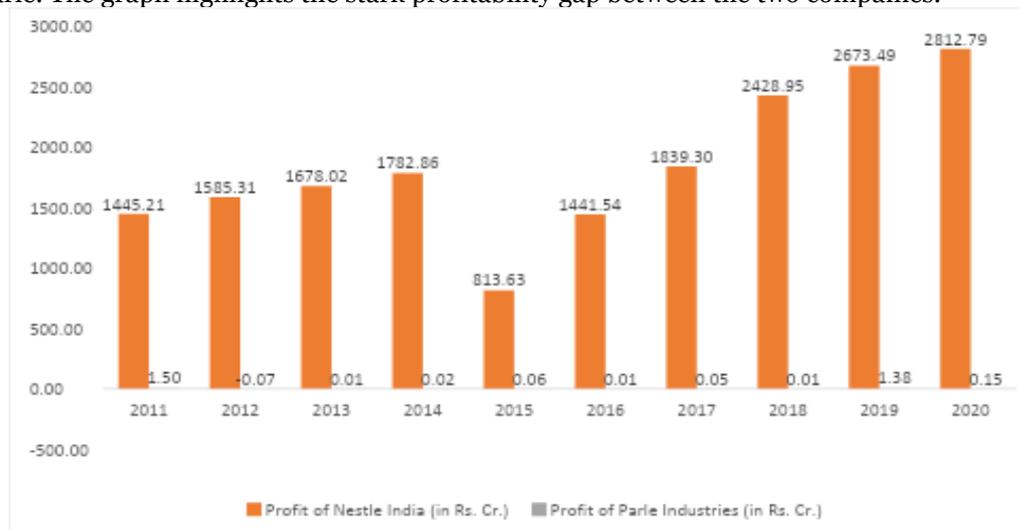


Figure 3: Comparative Profit of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Graph 3 underscores the stark divergence in profitability trajectories between Nestlé India Ltd. and Parle Products Pvt. Ltd. over 2011–2020. Nestlé demonstrates sustained long-term growth, rebounding strongly from the 2015 Maggi ban through its diversified portfolio, brand equity, and global R&D support, whereas Parle’s profits remain negligible, reflecting a deliberate cost-leadership strategy that prioritizes affordability and market penetration over margins. This contrast highlights how differing ownership structures and strategic orientations—investor-driven growth for Nestlé versus debt-averse stability for Parle—shape their financial outcomes.

4.4.2 Trend Analysis of Nestlé India Ltd.’s Profitability (2011–2020)

Trend analysis examines changes in financial indicators over time, revealing patterns of growth, decline, and recovery. Graph 4.2, a line chart of Nestlé India’s profits from 2011–2020, highlights the firm’s overall growth trajectory, temporary setbacks, and long-term resilience in sustaining shareholder value.

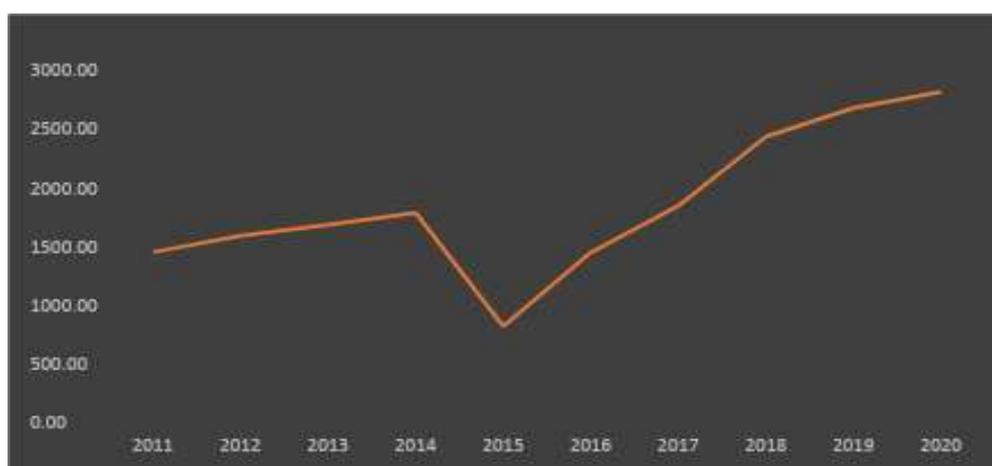


Figure 4: Profit Trend of Nestlé India Ltd. (2011–2020)

Nestlé India’s profit trend (2011–2020) reflects three distinct phases: steady growth from 2011–2014, a sharp decline in 2015 due to the Maggi noodles ban, and a strong recovery thereafter, with profits reaching ₹2812.79 crore in 2020. The rebound was supported by product diversification, renewed consumer trust, and favorable policy shifts such as GST and digital retail expansion. When contrasted with Parle’s negligible profitability, Nestlé’s trajectory underscores the advantages of public ownership, investor-driven governance, and global integration. Overall, Graph 4 confirms Nestlé’s resilience and long-term growth orientation, consolidating its position as a financially robust multinational in India’s FMCG sector.

4.4.3 Trend Analysis of Parle Products Pvt. Ltd.'s Profitability (2011–2020)

Trend analysis provides insights into a firm's financial trajectory, indicating stability, growth, or decline. For Parle Products Pvt. Ltd., limited disclosures make profit trends a crucial indicator of strategic outcomes. Graph 5 (2011–2020) reveals consistently negligible profitability, sharp fluctuations, and even negative returns, in stark contrast to Nestlé's steady upward performance, thereby reflecting the constraints of Parle's cost-leadership and low-margin model.



Figure 5: Profit Trend of Parle Products Pvt. Ltd. (2011–2020)

Parle's profitability trend (2011–2020) shows volatility, negligible returns, and limited growth, with only a brief spike in 2019 before declining again in 2020, reflecting the constraints of its cost-leadership strategy. In contrast to Nestlé's consistently high profits, Parle's performance underscores the trade-off between affordability-driven market share and sustainable financial growth. To assess these differences statistically, paired samples statistics were computed for both firms, summarizing mean, standard deviation, and standard error as a basis for subsequent t-test analysis.

Table 6: Paired Samples Statistics for Profit of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Statistics		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Profit of Nestle India (in Rs. Cr.)	1850.1100	10	619.07645	195.76916
	Profit of Parle Industries (in Rs. Cr.)	.3120	10	.59770	.18901

The paired samples statistics highlight a stark profitability gap between the firms. Nestlé India Ltd. reported an average profit of ₹1850.11 crore with a standard deviation of ₹619.07 crore, reflecting high but controlled variability linked to events such as the 2015 Maggi ban. Conversely, Parle Products Pvt. Ltd. recorded an average of only ₹0.31 crore with a standard deviation of ₹0.59 crore, indicating marginal returns and proportionally higher volatility. These results confirm Nestlé's superior performance and provide the empirical foundation for applying the paired samples t-test to establish statistical significance in the observed differences.

4.5. Liquidity

Nestlé maintained balanced liquidity, with CR ranging from 0.88 to 2.64 and QR between 0.38 and 2.03, close to conventional benchmarks. Parle, however, displayed extreme ratios, with CR spiking to 129.91 in 2018 before declining to 3.44 in 2020. Such volatility indicates excessive current asset holdings and inefficient working capital deployment. Statistical results reinforce this divergence: the paired sample t-test revealed significant differences for both Current Ratio (mean difference = -33.07; $p = 0.016$) and Quick Ratio (mean difference = -19.46; $p = 0.003$). This confirms that Nestlé pursued a lean, efficiency-driven liquidity strategy, while Parle overemphasized cash buffers, often at the cost of profitability.

Table 7: Current Ratio and Quick Ratio of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Years	Current Ratio of Nestle	Quick Ratio of Nestle	Current Ratio of Parle	Quick Ratio of Parle
2011	0.88	0.38	26.95	26.95
2012	1.31	0.65	24.64	24.64
2013	1.71	1.16	35.57	35.57
2014	1.45	0.83	39.88	39.88
2015	1.68	1.12	30.53	30.53

2016	2.01	1.43	26.31	26.31
2017	2.64	2.03	26.31	20.01
2018	2.55	2.03	129.91	0.72
2019	1.74	1.16	4.81	0.98
2020	1.68	1.11	3.44	0.89

The table presents the Current Ratio and Quick Ratio of Nestlé India Ltd. and Parle Products Pvt. Ltd. from 2011–2020, showing that Nestlé maintained relatively stable and gradually improving liquidity, while Parle exhibited highly fluctuating ratios, with extreme variations across the years.

4.5.1 Paired Samples Statistics for Liquidity Ratios (2011–2020)

Liquidity analysis requires not only ratio computation but also statistical validation to determine the consistency and comparative significance of firm-level outcomes. The paired samples statistics for Current Ratio (CR) and Quick Ratio (QR) summarize the mean values, variability, and standard errors for Nestlé India Ltd. and Parle Products Pvt. Ltd. over the study period 2011–2020. These results provide the empirical foundation for subsequent correlation and t-test analysis, thereby highlighting the distinct liquidity management approaches of the two firms.

Table 8: Paired Samples Statistics for Current and Quick Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Statistics		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Current Ratio of Nestle	1.7650	10	.53223	.16831
	Current Ratio of Parle	34.8350	10	35.40620	11.19642
Pair 2	Quick Ratio of Nestle	1.1900	10	.53325	.16863
	Quick Ratio of Parle	20.6480	10	14.72956	4.65790

Table 8 presents the paired samples statistics for liquidity ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020), revealing stark contrasts in their financial management. Nestlé's Current Ratio ($M = 1.76$, $SD = 0.53$) and Quick Ratio ($M = 1.19$, $SD = 0.53$) remain stable and closely aligned with conventional benchmarks, reflecting disciplined working capital practices and consistent short-term solvency. In contrast, Parle records abnormally high averages for both the Current Ratio ($M = 34.83$, $SD = 35.40$) and Quick Ratio ($M = 20.65$, $SD = 14.72$), indicating excessive liquidity, extreme volatility, and inefficient utilization of resources. These results highlight Nestlé's investor-oriented liquidity management versus Parle's ultra-conservative, debt-averse approach, which prioritizes reserves at the expense of profitability.

Table 9: Paired Samples Correlations for Current and Quick Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Correlations		N	Correlation	Sig.
Pair 1	Current Ratio of Nestle & Current Ratio of Parle	10	.465	.176
Pair 2	Quick Ratio of Nestle & Quick Ratio of Parle	10	-.411	.238

Table 9 reports the paired samples correlations for liquidity ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020). The Current Ratios show a moderate positive correlation ($r = 0.465$, $p = 0.176$), while the Quick Ratios indicate a moderate negative correlation ($r = -0.411$, $p = 0.238$). In both cases, the relationships are statistically insignificant, confirming that the firms' short-term solvency practices function independently. Overall, the evidence highlights distinct liquidity management approaches: Nestlé's stable, investor-oriented strategy contrasts with Parle's volatile, conservative model, shaped more by ownership structure than by industry-wide forces.

4.5.2 Paired Samples t-Test for Liquidity Ratios (2011–2020)

The paired samples t-test was applied to assess whether the liquidity ratio differences between Nestlé India Ltd. and Parle Products Pvt. Ltd. are statistically significant. Beyond descriptive contrasts, this test offers inferential confirmation by examining if variations in the Current Ratio (CR) and Quick Ratio (QR) over 2011–2020 are systematic rather than incidental.

Table 10: Paired Samples t-Test Results for Current and Quick Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Test		Pair 1	Pair 2
		Current Ratio of Nestle - Current Ratio of Parle	Quick Ratio of Nestle - Quick Ratio of Parle
Paired Differences	Mean	-33.07000	-19.45800
	Std. Deviation	35.16188	14.95674
	Std. Error Mean	11.11916	4.72974

	95% Confidence Interval of the Difference	Lower	-58.22330	-30.15741
		Upper	-7.91670	-8.75859
t			-2.974	-4.114
df			9	9
Sig. (2-tailed)			.016	.003

The paired samples t-test confirms statistically significant differences in liquidity ratios between Nestlé India Ltd. and Parle Products Pvt. Ltd. For the Current Ratio, Parle's levels exceeded Nestlé's by an average of 33 points ($t = -2.974$, $p = 0.016$), while for the Quick Ratio, the gap averaged nearly 20 points ($t = -4.114$, $p = 0.003$), with confidence intervals excluding zero in both cases. These results demonstrate structural contrasts in liquidity management: Nestlé maintains efficiency-oriented solvency aligned with profitability and investor expectations, whereas Parle sustains disproportionately high reserves reflecting its conservative, family-owned model. The evidence underscores the liquidity–profitability trade-off shaped by ownership structure and strategic orientation within India's FMCG sector.

4.5.3 Comparative Liquidity Trends of Nestlé and Parle (2011–2020)

Graphical representation of liquidity ratios allows for a clear visualization of differences in financial philosophy and management practices. By plotting Nestlé's Current Ratio alongside Parle's Quick Ratio, the figure highlights the stark contrast between lean, efficiency-driven liquidity management in a publicly listed multinational and excessively conservative liquidity buffers in a privately owned domestic firm.



Figure 4.4: Comparative Liquidity Trends of Nestlé (Current Ratio) and Parle (Quick Ratio), 2011–2020

Figure 4.4 depicts the contrasting liquidity patterns of Nestlé India Ltd. and Parle Products Pvt. Ltd. from 2011–2020. Nestlé's Current Ratio remains stable within 0.88–2.64, aligning with benchmark norms and reflecting efficient working capital control and predictable solvency. In contrast, Parle's Quick Ratio exhibits extreme volatility, rising from 26.95 in 2011 to an anomalous peak of 129.91 in 2018 before collapsing below 1.0 by 2020. This instability highlights excessive liquidity buffers, inefficient resource use, and weak asset–liability alignment. Overall, the figure underscores Nestlé's disciplined, investor-driven liquidity management versus Parle's risk-averse, inconsistent approach, illustrating the liquidity–profitability trade-off shaped by ownership and governance structures in India's FMCG sector.

4.6 Solvency Results

Nestlé's D/E ratio fell from 0.76 in 2011 to near-zero after 2014, indicating strategic deleveraging. Parle remained almost debt-free throughout, reflecting risk aversion and reliance on internal accruals. Although differences were not statistically significant ($p = 0.097$), the contrast highlights divergent philosophies: Nestlé's flexible capital structuring versus Parle's conservative zero-debt approach.

4.6.1 Solvency Analysis of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Solvency ratios assess a firm's capacity to meet long-term obligations, with the Debt-to-Equity (D/E) ratio serving as a key indicator of reliance on borrowings versus equity. While moderate debt may support growth

in capital-intensive sectors, FMCG firms typically prefer equity-driven financing due to steady cash flows and rapid product turnover. Table 4.7 presents the D/E ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020), highlighting their contrasting approaches to long-term financing and reliance on external debt.

Table 11: Debt-to-Equity Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Years	Total Debt/Equity of Nestle	Total Debt/Equity of Parle
2011	0.76	0.02
2012	0.58	0.02
2013	0.5	0
2014	0.01	0
2015	0.01	0
2016	0.01	0
2017	0.01	0
2018	0.01	0
2019	0.03	0.14
2020	0.02	0

The solvency analysis reveals contrasting yet conservative debt practices for Nestlé India Ltd. and Parle Products Pvt. Ltd. Nestlé reduced its Debt-to-Equity ratio from 0.76 in 2011 to 0.50 in 2013, and thereafter to 0.01 from 2014 onward, reflecting a deliberate shift toward equity-based financing supported by strong earnings and investor confidence. Parle, by contrast, maintained near-zero debt throughout the decade, with ratios between 0.00 and 0.02, except for a brief rise to 0.14 in 2019, underscoring its ultra-conservative, family-owned approach reliant on internal funds. While both firms embody the FMCG sector's debt-averse profile, Nestlé demonstrates a dynamic capital structure strategy aligned with shareholder expectations, whereas Parle prioritizes financial autonomy over scalability. This divergence underscores the influence of ownership structure on solvency management.

4.6.2 Debt-to-Equity Trends of Nestlé and Parle (2011–2020)

The Debt-to-Equity (D/E) ratio indicates the balance between debt and equity financing, with lower values reflecting stability and reduced risk. In FMCG, firms generally favor conservative ratios due to steady cash flows. Figure 4.5 depicts D/E trends (2011–2020), showing Nestlé's shift from moderate debt reliance to near-zero levels, while Parle maintained negligible debt throughout, except for a brief rise in 2019.

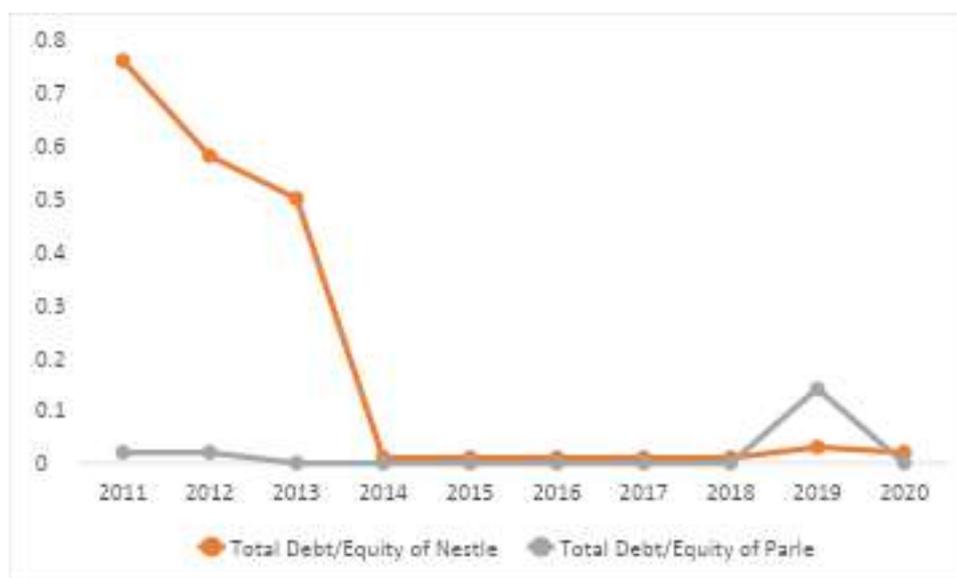


Figure 4.5: Debt-to-Equity Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Nestlé's Debt-to-Equity ratio declined from 0.76 in 2011 to 0.50 in 2013 and dropped to 0.01 in 2014, remaining near zero thereafter except for marginal rises in 2019 (0.03) and 2020 (0.02). This shift reflects equity-driven growth supported by retained earnings and market confidence. Parle, by contrast, maintained near-zero leverage (0.00–0.02) across the decade, with a brief rise to 0.14 in 2019, indicating a temporary funding need. Overall, Figure 4.6 highlights two distinct approaches: Nestlé's adaptive, equity-focused

strategy reducing financial risk versus Parle's rigid debt-averse model prioritizing autonomy but limiting scalability, shaped by their ownership and governance structures.

4.6.3 Paired Samples Statistics for Debt-to-Equity Ratios (2011–2020)

To assess solvency differences between Nestlé India Ltd. and Parle Products Pvt. Ltd., paired samples statistics provide summary measures of central tendency and variability in their Debt-to-Equity ratios over the ten-year period. These results establish the empirical base for subsequent correlation and t-test analysis, enabling a deeper understanding of capital structure strategies adopted by both firms.

Table 12: Paired Samples Statistics for Debt-to-Equity Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Statistics		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Total Debt/Equity of Nestle	.1940	10	.29617	.09366
	Total Debt/Equity of Parle	.0180	10	.04367	.01381

The statistics highlight clear differences in leverage. Nestlé reported a mean Debt-to-Equity ratio of 0.194 (SD = 0.296), reflecting moderate debt use initially and a shift to equity dominance, with a standard error of 0.093 indicating reliable estimates. Parle's mean ratio was only 0.018 (SD = 0.044), showing near-total debt avoidance and consistent reliance on internal funds. Overall, Nestlé adopted a dynamic, market-driven structure, while Parle maintained a rigid, debt-averse model shaped by private ownership and financial conservatism.

4.6.4 Paired Samples Correlation for Debt-to-Equity Ratios (2011–2020)

Correlation analysis was applied to examine whether the solvency patterns of Nestlé India Ltd. and Parle Products Pvt. Ltd. show any statistical relationship over the study period. A correlation coefficient close to +1 indicates a strong positive association, a value near -1 signals a strong inverse association, and a value around 0 denotes little or no relationship. This test is critical in understanding whether the capital structure strategies of the two firms are aligned or evolve independently.

Table 13: Paired Samples Correlation between Debt-to-Equity Ratios of Nestlé India Ltd. and Parle Products Pvt. Ltd. (2011–2020)

Paired Samples Correlations		N	Correlation	Sig.
Pair 1	Total Debt/Equity of Nestle & Total Debt/Equity of Parle	10	-.034	.926

The correlation coefficient of -0.034 indicates an almost negligible negative relationship between the Debt-to-Equity ratios of Nestlé and Parle. The associated p-value of 0.926 is far above the 0.05 significance threshold, confirming that the correlation is statistically insignificant. This result demonstrates that the solvency practices of Nestlé and Parle are entirely independent of each other. Nestlé's gradual transition from moderate leverage to an equity-dominant structure reflects strategic adaptation to profitability, governance standards, and investor expectations. Conversely, Parle's near-zero reliance on debt throughout the period embodies a conservative, family-owned financing philosophy rooted in self-sufficiency. The absence of correlation highlights that these approaches are not shaped by common industry forces but rather by firm-specific ownership models and governance orientations.

5. Discussion

The comparative evidence highlights clear differences in operational efficiency between Nestlé India Ltd. and Parle Products Pvt. Ltd., reflecting the influence of ownership structures and governance philosophies. Nestlé's consistently high ATR and stable ITR demonstrate disciplined asset deployment, efficient inventory cycles, and resilience to external disruptions. These outcomes are consistent with prior studies emphasizing the efficiency advantages of multinational FMCG firms due to their scale economies, global best practices, and investor-driven accountability (Patel & Joshi, 2021; Singh & Singh, 2022). Parle, in contrast, exhibited fragile efficiency with negligible turnover in the early years, sporadic improvements, and sharp fluctuations in later periods. Its conservative, family-owned governance structure emphasized liquidity and solvency but failed to achieve sustainable efficiency—echoing findings in the literature on private firms' risk-averse strategies (Rani & Vijayalakshmi, 2022; Roy & Dutta, 2022). Policy shocks such as demonetization, GST, and COVID-19 further amplified this divergence: Nestlé absorbed shocks effectively, while Parle's cost-leadership strategy preserved sales volumes but did not convert them into stronger efficiency outcomes. These findings affirm the ownership-performance nexus in emerging markets, where governance orientation directly conditions firms' ability to withstand external disruptions and sustain operational productivity.

6. Conclusion

This paper underscores the role of ownership structures in shaping operational efficiency in India's FMCG sector. Nestlé, as a listed multinational, demonstrated sustained efficiency through disciplined resource utilization and adaptive responses to policy reforms and crises. Parle, by contrast, reflected the limitations of a private, debt-averse model—ensuring solvency but constraining growth and efficiency. The study contributes to comparative corporate finance literature by juxtaposing two firms with divergent governance philosophies, highlighting how ownership orientation influences financial strategies and outcomes. For managers, the findings emphasize the need to balance liquidity conservatism with efficiency-driven growth. For policymakers, the results point to structural differences between listed and unlisted firms that must be considered when assessing sectoral resilience. Future research could expand this analysis by incorporating additional firms, longer time horizons, or non-financial dimensions such as brand equity and ESG practices, thereby enriching the understanding of ownership-driven financial dynamics in emerging economies.

References :

1. Nestlé India Ltd. Annual Report 2020. Nestlé India; 2020. Available from: <https://www.nestle.in/asset-library/documents/library/reports/annual-report-2020.pdf>
2. Nestlé India Ltd. Annual Report 2011. Nestlé India; 2011. Available from: <https://www.nestle.in/asset-library/documents/library/reports/annual-report-2011.pdf>
3. Parle Industries Ltd. Annual Report 2019–20. Parle Industries; 2020. Available from: https://www.parleindustries.com/images/AnnualReportParleIndustriesLtd-2019-20_compressed.pdf. [parleindustries.com](https://www.parleindustries.com)
4. Indian Brand Equity Foundation (IBEF). FMCG Industry Report. New Delhi: IBEF; 2024. Available from: <https://www.ibef.org/industry/fmcg>. IBEF
5. Bagchi S, Khamrui B. Comparative analysis of liquidity and profitability: A study of Britannia and Dabur. *IUP J Financ Risk Manag*. 2012;9(4):55–67.
6. Patel V, Joshi H. Ownership structure and financial efficiency: Evidence from Indian FMCG sector. *Finance India*. 2021;35(3):301–316.
7. Rani NS, Vijayalakshmi G. Financial performance evaluation of selected FMCG companies in India: A ratio analysis approach. *J Manag Res*. 2022;22(1):45–58.
8. Roy S, Dutta A. Strategic financial decision making in Indian FMCG firms: Role of capital structure and profitability. *Glob Bus Rev*. 2022;23(4):905–921.
9. Bhaskar P, Chakrabarti S, Basu A. Working capital efficiency and firm profitability: An analysis of Indian FMCG companies. *South Asian J Bus Manag Cases*. 2024;13(1):74–85.
10. Yadav VK, Mathur R. Analysis of liquidity position of selected FMCG companies in India. *Int J Manag Soc Sci Res*. 2021;10(3):88–95.
11. Tamragundi A, Vaidya P. Liquidity–profitability relationship: A study of ten leading FMCG companies in India. *IJRAR*. 2019;6(1):112–25.
12. Kalsie A, Arora A. Analysis of working capital management of Indian FMCG companies. *Effulgence*. 2016;14(2):72–86.
13. Singh G, Singh S. A financial comparative study of Nestlé India and Britannia Industries Ltd. *Int J Appl Bus Econ*. 2022;4(1):77–83.
14. Mukherjee S. Digital transformation and financial performance in FMCG: Evidence from India. *J Sustain Bus Manag*. 2021;7(2):23–38.
15. Gupta S. Working capital and profitability: Evidence from Indian FMCG sector. *Int J Sci Technol Res*. 2015;4(4):142–6.
16. Kumar N, Sridhar A. COVID-19 and financial outcomes in consumer goods firms: Evidence from India. *Indian J Appl Res Econ Finan*. 2023;12(1):67–78.
17. Deshmukh P. FMCG profitability cycles over a decade: Evidence from India. *J Indian Bus Res*. 2019;11(2):112–28.
18. Joshi A, Subramanyam P. Demonetization: Impact on FMCG sector in India. *Int J Recent Res Appl Stud*. 2017;4(3):19–29. (working paper)
19. Naik RH. A study on perspective impact of GST on FMCG sector in India. *Int J Res Bus Soc Sci*. 2017;3(9):1–12.
20. Prakash R. FMCG resilience during COVID-19: Evidence from listed firms. *J Corp Res*. 2020;8(4):45–60.
21. Verma A. Interest coverage ratio and financial stability: A study of Indian FMCG companies. *J Fin Manag Anal*. 2018;31(1):58–65.
22. Patel KT. A study on financial analysis of Nestlé India Limited. *Advance and Innovative Research*. 2019;2012(116):1–12.
23. Dhanesh GS, Sriramesh K. Culture and crisis communication: Nestlé India's Maggi noodles case. *J Int Manag*. 2018;24(3):204–214.

24. Prajapati R, Meena K. Financial leverage and growth dynamics of Indian private FMCG firms. *South Asian J Financ Manage.* 2020;11(1):22–36.
25. Saxena V, Malik N. Performance evaluation of Indian FMCG companies: A DEA approach. *Int J Recent Technol Eng.* 2020;8(6):1020–1026.
26. Kapoor R. ESG reporting and its influence on market performance: A case of Indian FMCG sector. *Asian J Sustain Bus.* 2023;2(2):45–52.
27. Liu Q, Zhang L, Kumar V. ESG practices and financial performance: Evidence from multinational firms. *J Sustain Finance Invest.* 2022;12(2):137–150.
28. Arora S, Mehta P. Working capital cycles and firm performance: Indian FMCG evidence. *Manag Account Rev.* 2019;14(2):88–104.
29. ICICI Lombard/IBEF. FMCG sector outlook report. ICICI Lombard; 2024. Available from: <https://www.ibef.org/news/fmcg-sector-to-have-sustained-growth-rate-of-7-9-in-2024-report>.
30. Rohit NS. An impact of COVID-19 on financial performance of selected FMCG companies in India. *GAPI Interdiscip Stud.* 2021;4(1):24–32.