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### “How Do Merged Companies Perform on a Long-Run? - A Dual Strategic Analysis on Synergy”

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#### **Abstract**

Mergers and Acquisitions are growth strategies to effectuate synergies and competitive advantage. Nevertheless, questions around their lasting effects on both operational and financial outcomes continue to be debated in academic circles. Using a dataset of 52 acquiring firms from different sectors, this research evaluates long-term post-merger outcomes across two dimensions: operational and financial performance. This study evaluates firm performance over a three-year period for pre- and post-merger (2022–2024) periods, while excluding the transition year (2021) to avoid integration-related distortions. The operating efficiency analysis employs Operating Cash Flows relative to Operating Assets (OCF/OA) as the main indicator, normalized against industry averages to exclude the external factors to evaluate merger effects. For Financial Performance, Return on Equity (ROE) is implemented and is normalised. Both performance dimensions are decomposed using a DuPont-style breakdown to identify the sources of economic gain or results. The ROE is decomposed into Net Profit Margin (NPM), Asset Turnover (AT), and Equity Multiplier (EM), and operating performance is evaluated through Operating Profit Margin and Asset Turnover.

The research highlights certain key areas where management needs to focus in order to enhance both operational and financial performance. These research findings are relevant in formulating business strategies, performance measurement and evaluation, and policy formulation on the effectiveness of Mergers & Acquisitions (M&A) in the context of India.

#### **Key words**

Mergers & Acquisitions, Operational synergies & Financial synergies, Post-Merger financial performance & Shareholder value.

## 1. Introduction

Mergers & Acquisitions are viewed as powerful growth strategic tools for long-term growth, value creation and sustainability. In developing economies such as India, where the process of liberalization, the rise of competitive intensity, and globalisation have hastened the pace of Mergers & Acquisition deals, firms are increasingly turning to consolidation, the M&A route, to achieve scale, efficiency, and gain a competitive edge. If the resources of both acquired and acquiring firms are utilised post-merger efficiently, then it will create synergies and value addition. (Gupta, Mishra, & Tripathy, 2021). Whether these transactions translate into the promises and the results remains a subject of continued academic and managerial debate. Hence, it becomes important to examine whether mergers deliver on these benefits.

Merger outcomes have been researched through two overarching paradigms: operational efficiency and financial returns to shareholders. It is deduced that a successful merger will result in cost synergies, better asset utilization, and improved managerial efficiency. However, the desired improvements and results may not necessarily transpire over the long term. On the other hand, the financial market and investors generally use key performance indicators such as the Return on Equity (ROE), which is a performance metric that reflects the capability of the firm to create value after the merger. However, the performance may not be entirely consistent. There is a major gap between the two perspectives. This duality highlights a critical gap: focusing solely on either operating performance or financial returns may provide an incomplete picture of mergers' effectiveness. This study addresses this gap by analysing Indian firms that underwent mergers in 2021, both operationally and financially. By combining two distinct but complementary analyses, the paper offers a complete view of the performance of post-merger outcomes. The first component focuses on core operational performance, using Operating Cash Flows relative to Operating Assets (OCF/OA) to assess whether the merged entities improved efficiency in their fundamental business activities. ROE is a measure of intrinsic value, and through the DuPont model, it can be anatomised into its value drivers. (Chari, L.S., and Mohanty, R.P, 2007). Identifying the drivers that have not contributed significantly to ROE helps firms to strategise their efforts to maximise their operational and financial performance. A DuPont-style decomposition is applied to the metrics to analyse the underlying drivers. In the case of ROE, this comprises Net Profit Margin (NPM), Asset Turnover (AT), and Equity Multiplier (EM). For operating performance, the study breaks down OCF/OA into Operating Profit Margin and Asset Turnover. This allows us to understand whether the results are driven by

profitability, efficiency, or financial leverage.

The research examines and compares the averages over the pre-merger (2018-2020) and post-merger (2022- 2024) periods, excluding 2021, which was the year of the merger done to avoid any bias caused by the integration and restructuring. The study includes both group and non-group company mergers. From the acquiring company's shareholders' point of view, whether it is a merger of a company within the group or outside the group, it affects the shareholder value. Hence, mergers within the group are considered for the study. By conducting paired sample t-tests and regression analysis, the research aims to identify not only whether the performance improved but also the specific factors that contributed to the change, i.e. the source of the gain or loss. Thus, the research offers a more detailed insight into the process of mergers over time within the Indian context.

## 2. Literature Review

Significant research has been conducted on mergers as a means of growth and achieving a competitive advantage. Mergers are expected to yield positive results, however, the literature is inconsistent with some showing no significant improvements or even a decline in performance. Merger outcomes are mixed because there are diverse motives behind the merger. While they are adopted and pursued to attain economies of scale and improve efficiency, they can also lead to unintended negative results as well, diseconomies of scale. To illustrate, a merger that intends to create a larger, more efficient entity may possibly attract regulatory scrutiny if the newly formed firm gains large market share, potentially violating the antitrust laws. This reflects how one intended benefit of a merger can be counterbalanced by unintended drawbacks. Evaluating post-merger performance can be complex and understanding that the long-term impact is especially important in emerging or developing economies especially in markets like India, where volatile and economic conditions are prevalent, and regulatory frameworks and market dynamics that are different from those in developed countries. This literature review aims to evaluate the existing research on post-merger performance, its findings, and highlights the gaps that this study aims to address.

### 2.1 Research on the Performance of Mergers

Numerous scholars have examined the effect of mergers on the performance of companies for financial and operating reasons. Some of the important papers from this field that have quantified performance have been reviewed and examined to present a snapshot of the work in this branch of research. This literature review is not presented as an exhaustive one. A few pertinent scholarly articles might

have been unintentionally overlooked. But an attempt has been made to make this study as exhaustive as possible by adding the important papers. Researchers employ two main approaches to operationalize the performance: a) Accounting measures using objective data like cash flow returns and other financial ratios, b) Share price returns, based on objective data again, which are associated with the capital market. In this paper, the literature discussion and research methodology pertain to the accounting of post-merger performance.

## 2.2 Operating Performance Post-Merger-International Context

One of the earliest and significant studies in this area was by Ravenscraft and Scherer (1989). They tested whether profitability after the merger would surpass both pre-deal levels and industry benchmarks. Their sample period was 1975-77 of 2,732 lines of business, and what they found was that there was no increase in the post-merger operating performance. A limitation in the Ravenscraft and Scherer study was that the post-acquisition period and the acquisition event were not aligned, leading to invalidity of the results. Yeh and Hoshino (2000) studied Taiwanese mergers with a sample of 20 firms between 1987 and 1992. Stock market-based and accounting-based measures were used, and the industry medians were determined for the publicly listed firms. They found no profitability improvements; in fact, there was deterioration in some of the metrics they employed. There was no significant difference in the pre- and the post-merger values. The paper was considered for the acquiring company, and most of the target company was privately owned. Additionally, in most cases, the mergers happened due to government intervention, hence this could be an explanation for the deterioration in the acquiring firms; as a result, the result of this study is not generalizable or applicable to all mergers. Sharma and Ho (2002) studied 36 Australian mergers that occurred during 1986-1991, employing matched firms to control for industry effects and economic effects. Their research included financial information for three years prior to and following the mergers. For measuring operating efficiency and shareholder value, the research employed financial ratios like Return on Assets, Return on Equity, profit margin, Earnings Per Share (EPS), and cash flows. The limitation was that there was a lack of generalizability of the results since it examined the results for manufacturing industries in Australia.

## 2.3 Operating Performance Post-Merger

Pawasker (2001) studied 36 mergers that had taken place in India between 1992 and 1995. It looked at how mergers affected the profitability of companies in India using

accrual measures of accounting. The study found that the profitability decreased after the merger, suggesting the acquiring firms showed no improvement in performance post-merger. The limitations of this study were that it used only acquiring companies to see the variations, and in most cases, the merger took place within the same group. Research can be extended to include the performance of both the acquirer and the target for the analysis. An exclusive study can be done only based on non-group mergers. Ghosh (2001) conducted a study examining a sample of 315 acquiring and target firm pairs that successfully executed mergers during the period 1981-1995. The study measured post-merger performance based on operating cash flows as the main metric, comparing pre- and post-merger cash flow performance. Rather than using industry median benchmarks, the study used control firms matched on comparable pre-acquisition operating cash flow performance and total asset size. The results showed annual growth of 2.4% in the operating cash flows of merged companies. One of the major limitations of this research was its implicit assumption that mergers are mostly about large, performing companies. This may not be the case in India, where smaller and underperforming companies also seek to merge as a strategy for growth. Moreover, the methodology of the study poses challenges in the Indian market since it is challenging to identify well-matched control firms owing to the dispersed and unpredictable character of Indian industry segments.

Ramakrishnan (2008) had researched 87 merger pairs where the deals took place between 1996 and 2002 in India, which allowed the study of financial data spanning three years on either side of the deal. It used the operating cash flow over operating assets as the main metric. The study had factored out the impact of external factors like economic conditions and industry-specific rules that affect the performance, benchmarking each firm against its respective industry median. The statistical tests used were a paired t-test and regression analysis. The analysis indicated that overall, mergers in India did in fact result in long-term improvements in the firms' performance. (a 4.3% annual improvement in cash flow returns after the merger.) The paper had broken down the operating performance metric to find the source of the economic gain into Operating Profit Margin and Asset Turnover. They were able to obtain some insights; post-merger, firms show improved operating margins, likely due to economies of scale lowering fixed costs. However, unchanged assets turnover suggests no evidence of increased asset utilization efficiency.

## 2.4 Financial Performance Post-Merger-International Context

Firth (1980) examined the financial performance of UK firms involved in mergers and acquisitions between 1969 and 1975. He analyzed accounting-based profitability ratios, such as accounting ratios measuring capital efficiency and equity returns. The findings indicated no appreciable gain in financial performance post-acquisition and concluded that mergers did not enhance financial performance in a statistically significant way. KPMG (1999) had conducted study based on a global sample of 700 companies that underwent mergers. Their report revealed that 17% of mergers added value in terms of financial returns, 30% showed no evident effect, and more than 50% destroyed shareholder value. These results raised serious concerns about the financial viability of M&As. The study used market-based financial metrics to evaluate performance, such as Total Shareholder Returns (TSR), which included share price appreciation and dividends. Laamanen & Keil (2008) studied 120 acquisitions over Europe and the US from 1990 to 2002. They analyzed whether the acquisitions were successful over time with market-based measures, such as cumulative abnormal returns (CARs), and accounting-based ROE. The study found that acquisitions conducted outside the core operations resulted in poor financial performance, while acquisitions conducted within the same industry or area of expertise resulted in better financial performance.

André, Kooli, and L'Her (2004) evaluated the extended stock performance of Canadian acquirers between the periods of 1980 and 2000. Using calendar-time portfolios and buy-and-hold abnormal returns (BHAR). They concluded that Canadian acquirers, by and large, underperformed in the long term, especially in stock-financed deals. The study contributed significantly to comprehending the adverse effects of certain types of deal structures on financial performance. Martynova and Renneboog (2008) provided a review of five merger waves in Europe and the U.S. Based on the results, they concluded that most mergers failed to create long-term shareholder value. Financial performance was measured using share price movements, profitability indicators, and valuation ratios. They attributed the disappointing financial results to overvaluation of targets, lack of integration planning, and excessive premiums paid.

## 2.5 Financial Performance Post-Merger

In the Indian context, researchers Mantravadi and Reddy (2008) examined the financial performance of 118 mergers from 1991 to 2003. They tested various financial parameters before and after the merger, namely, Return on Net Worth (RONW), Return on Capital Employed

(ROCE), and Gross Profit Margin (GPM). The findings indicate that the profitability of certain sectors, such as the pharmaceutical and textile industries, increased after the merger, while the profitability of sectors such as manufacturing and financial services declined after the merger. Beena (2008) undertook a study to analyze the impact of merger announcements on the movement of share prices. She studied 115 merger announcements in India between 1999 and 2003. The study measured the impact of the merger announcements using cumulative average abnormal returns (CAAR). According to the results, the shareholders of the target companies made a significant gain, but the shareholders of the acquiring companies did not experience gains. This indicates that the benefits of the merger were not distributed equally.

Selvam et al. (2009) undertook a study which examined pre- and post-merger financial performance of select Indian firms between 2000 and 2007. Using a set of financial ratios, such as profitability metrics, such as earnings per share, net profit margin, and asset returns, their matched pair statistical analysis revealed no meaningful financial gains following the mergers. The findings suggested that mergers in India were driven more by regulatory or strategic motives than by immediate financial gains. Vanitha and Selvam (2010) studied 17 Indian manufacturing firms that had undergone mergers between 2000 and 2005. They analyzed five financial ratios: Gross Profit Margin, Net Profit Margin, Return on Capital Employed, Return on Equity, and EPS. The results revealed no significant difference in financial performance pre- and post-merger, implying that the mergers did not improve financial efficiency. Yadav and Kumar (2012) analyzed the financial performance of 30 Indian corporate mergers that took place between 2000 and 2010 using accounting measures like ROA, ROE, and Profit Before Tax. The study concluded that mergers did not have a statistically significant positive impact on financial performance. It also highlighted that the success of mergers in India is influenced heavily by the sector, deal structure, and integration process. Though Merger outcomes have been evaluated by researchers through two broad dimensions, operating performance and Financial Performance, there are a few studies focused on the joint examination of both. By combining both operating and financial performance, a comprehensive view of the post-merger outcome can be critically assessed. The study attempts to bridge this gap, which was identified based on previous research papers. The research hypotheses are given below based on the research gap identified.

Research hypotheses are stated below: -

H1 - Post-Merger Operating Performance is higher than the long-term pre-merger operating performance, as measured by the key operating metric. (Operating Cash Flow /

Operating Assets)

H2 - Operating Profit Margin is a significant driver of post Operating Performance.

H3 - Operating Asset Turnover is a significant driver of post Operating Performance.

H4 - Post-Merger Financial Performance in terms of Return on Equity is higher than Pre-Merger Financial Performance.

H5 - Net Profit Margin is a significant value driver of Post-Merger Shareholder Value.

H6 - Asset turnover is a significant value driver of Post-Merger Financial Performance.

H7 - Financial leverage is a significant value driver of Post-Merger Financial Performance.

### 3. Objectives of the Study

The objectives of the study are given below: -

1. To find whether Post-Merger Operating Performance is higher than Pre-Merger Operating Performance.
2. To identify the value drivers that significantly contribute to post merger Operating Performance.
3. To find whether Post-Merger Financial Performance is higher than Pre-Merger Financial Performance
4. To identify the value drivers that significantly contribute to post merger Financial Performance

### 4. Research Methodology

There is scant research that explores both operating and financial performance after mergers in the Indian setting. Henceforth, the study aims to analyze whether mergers in India have led to long-term improvements or deteriorations of firm performance. The study applies the quantitative method of research, where, through objective financial data and statistical tools, one measures post-merger performance on two accounts: operating efficiency and financial performance.

The data source and sample selection process are described as follows.

Secondary data was drawn from the Centre for Monitoring Indian Economy (CMIE) Prowess database. This paper attempts to study the Indian scenario, a provider of the most comprehensive firm-level Indian financial and market data. Only the deals of large Liquid companies were selected for the study. These were 66 domestic merger deals that had been completed within the financial year ending March 202. The list of 66 merger deals is listed in Appendix 1. This period was chosen as it is considered

recent, along with the fact that it gives the researcher access to three-year financial data, both pre- and post-performance of the merger, allowing one to analyze performance from a long-term perspective. Cross-border mergers involving foreign acquirers or foreign targets were dropped for a more homogeneous sample in the Indian regulatory and economic context. Based on the availability of data from 66 domestic mergers, 52 deals were selected for the study. The list of the 52 Acquiring Companies of the deals is mentioned in Appendix 2.

## 5. Analysis and Findings

### 5.1 Operating Performance Evaluation

Metric Used: OCF / OA (Operating Cash Flow / Operating Assets)

Operating efficiency is measured here by cash flows from operations (OCFs), scaled by operating assets (OA), as done in previous studies (Healy et al., 1992; Ghosh, 2001). The ratio measures cash flow generation through core business activities by a firm relative to the assets it employs.

#### 5.1.2 Normalizing Against Industry Averages

Since each firm faces industry-specific regulatory and economic conditions, normalization is needed to eliminate such effects in identifying changes due to the merger. For each acquiring firm:

1. The pre-merger OCF and OA averages based on actual firm data were calculated for 2018–2020.
2. Post-merger averages were calculated for 2022–2024.
3. Industry OCF/OA ratios were computed for each period by pooling all firms in the same industry.
4. Expected OCF for each firm was calculated as:  $(\text{Industry Average OCF} / \text{Industry Average OA}) \times (\text{Firm's OA})$
5. The industry-adjusted OCF/OA was calculated as:  $(\text{Firm's Actual OCF} - \text{Expected OCF}) / (\text{Firm's OA})$

This normalization was applied to all 52 acquiring firms, for both pre- and post-merger periods. The Industry classification of the Acquiring companies is given in Appendix 3.

#### 5.1.3 Statistical Test: Paired Sample t-Test

A paired sample t-test was used to compare the mean industry-adjusted operating performance between pre- and post-merger periods. The test checks whether the average difference is statistically significant at the 5% significance level ( $\alpha = 0.05$ ). While the t-test assumes normality and homogeneity of variance, it remains a robust tool even under mild violations of these assumptions (Best, J.W., p.455). The industry adjusted operating performance of both pre & post-merger is listed in Appendix 4.

**5.1.4 DuPont-style Decomposition of Operating Performance**

To obtain a deeper understanding of changes in operating performance, OCF/OA was decomposed into its components:

$OCF/Sales = OCF / Sales$  - Measures core profitability from operations in terms of cash flows generated.

$Sales/Operating Assets = Sales / Operating Assets$  - Shows how effectively assets are used to generate sales.

This decomposition gives an indication as to post-merger improvements being related to enhanced margins (cost efficiency) or superior asset utilisation.

Multiple Regression analysis was conducted between post-merger OCF/OA with its two constituents, OCF/Sales and Sales/Operating Assets, to determine its significant contribution to the operating performance.

**5.2 Financial Performance**

Financial Performance was considered by using Return on Equity (ROE) as the financial indicator. ROE is a measure of how effectively a business uses shareholders' capital to generate income. In order to control for the firm-level trends, ROE were also compared with the industry average ROE, in order to assess whether the post-takeover changes can be attributed to firm-specific improvement or to industry-level change. The research hypothesis is tested at 5% significance level ( $\alpha = 0.05$ ).

A DuPont analysis was carried out to decompose the ROE, and the components are:

$Net\ profit\ margin\ (NPM) = Net\ profit / Revenue$  – profitability ratio.

$Asset\ Turnover\ (AT) = Sales / Total\ Assets$  – indicates the utilisation of assets.

$Equity\ Multiplier\ (EM) = Total\ Assets / Equity$  – measures financial leverage.

This breaking down allows observations to be made to see whether high ROE comes from excellent margins, better utilisation, or higher leverage.

Multiple Regression analysis was conducted between post-merger ROE and its three DuPont parts (NPM, AT, EM) to determine their significant contribution to shareholder value.

**6. Discussion**

This section shows the empirical findings on the long-term post-merger performance of India-acquiring firms. The results are split into two main topics: (A) Operating performance and (B) Financial performance. Paired sample t-tests and Multiple regression analysis were used to test the hypotheses.

**6.1 Operating Performance Analysis**

To assess changes in operating performance post-merger, industry-adjusted Operating Cash Flow to Operating Assets (OCF/OA) was employed as the key metric, and this is supplemented by DuPont-style breakdown and correlation analysis.

**6.1.1 Paired Sample t-Test: OCF/OA**

HR - Research Hypothesis

HR - Post Merger Operating Performance is higher than the long-term pre-merger operating performance, as measured by the key operating metric (Operating Cash Flow / Operating Assets).

Table 1 – The ‘t’ value table – Operating Performance				
Period	N	Mean	SD	T
Pre Merger	52	-1.694	11.14	-1.08
Post Merger	52	-0.636	4.07	
N = number of observations; SD = standard deviation; t = t-statistic.				

A paired sample t-test was conducted for 52 acquiring firms over a three-year pre-merger period (2018–2020) and a corresponding post-merger window (2022–2024). The results mentioned in Table -1 indicate a marginal rise in the mean from -1.694 (pre-merger) to -0.636 (post-merger), reflecting a mean difference of +1.058. The t-statistic of -1.08 and a p-value of 0.287 suggest that this improvement is not statistically significant at the 5% significance level. Therefore, we reject the research hypothesis, indicating that the post-merger operating performance does not exhibit a statistically meaningful change. The ‘t’ value -1.05 is less than the table value 1.697 (Fisher and Yates: Garret, H.E) and hence it is not significant.

The research hypothesis is rejected, and it is inferred that there is no significant difference between the Pre-Merger Value and the Post Merger value.

**6.1.2 DuPont-style Decomposition of OCF/OA**

To better understand what caused the changes, the paper decomposes the idea into two parts: OCF/S and S/OA

**6.1.3 Multiple Regression Analysis**

HR -

OCF/S is a significant value driver of Operating Performance.

S/OA is a significant value driver of Operating Performance  
 Table 2 – Multiple Regression Output- Post Operating Metric

**Linear Regression**

Model Fit Measures

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
1	1.000	0.999	0.999

Model Coefficients - Post-Operating Metric

Predictor	Estimate	SE	t	p
Intercept	-0.0472	0.0118	-4.01	<.001
Post sales turnover	0.0920	3.64e-4	252.84	<.001
Post-Operating Profit Margin	0.2798	0.0675	4.14	<.001

The results of Multiple regression analysis based on Jamovi software are given below:-  
 Post Operating Metric= -0.04719+ 0.2798(Post- Operating Profit Margin)+ 0.0920(Post Sales Trunover) ( score form)  
 Based on the results presented in the table given above ,it can be inferred that OCF/S and S/OA have emerged as significant value drivers. Out of both value drivers, OCF/S exerts a relatively heavy weight on operating performance. The research Hypotheses -OCF/S is a significant value driver of Operating Performance &S/OA is a significant value driver of Operating Performance, got accepted.

**6.2 Financial Performance Analysis**

Return on Equity (ROE) was used to assess financial performance, with the help of DuPont decomposition and correlation analysis to find underlying causes.

HR-Post Merger Financial Performance in terms of Return

Period	N	Mean	SD	T
Pre Merger	52	-.847	5.75	-.916
Post Merger	52	-.156	1.59	

N = number of observations; SD = standard deviation; t = t-statistic.

on Equity is higher than Pre-Merger Financial Performance.

**6.2.1. Paired Sample t-Test: ROE**

The same pre- and post-merger periods were compared for 52 acquiring firms using a paired t-test on ROE. The

average ROE increased from -0.847 (pre-merger) to -0.156 (post-merger), as mentioned in Table -3, indicating a slight improvement. However, with a t-value of -0.916 and a p-value of 0.364, the result is not statistically significant. Hence, the Research Hypothesis is rejected, suggesting that the mergers did not lead to Financial Performance.

**6.2.2 DuPont Decomposition of ROE**

The ROE was broken down into Net Profit Margin (NPM), Asset Turnover (AT), and Equity Multiplier (EM) to identify the drivers.

**6.2.3. Multiple Regression Analysis**

HR - NPM is a significant value driver of Financial Performance.

AT is a significant value driver of Financial Performance. EM is a significant value driver of Financial Performance. The results of Multiple regression analysis based on Jamovi software are given below:-

$$ROE= 0.011+0.20039(Post\ MergerNPM)+0.072 (Post\ Merger\ AT)(\ score\ form)$$

**Table 4- Multiple Regression Output – Post Merger Financial Metric**

**Linear Regression**

Model Fit Measures

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Overall Model Test			
				F	df1	df2	p
1	0.905	0.819	0.807	72.2	3	48	<.001

Model Coefficients - ROE

Predictor	Estimate	SE	t	p
Intercept	0.02364	0.03199	0.739	0.464
NPM	0.20039	0.06750	2.969	0.005
AT	0.07151	0.00528	13.553	<.001
EM	-0.00902	0.01066	-0.847	0.401

Based on the results presented in the table above it can be inferred that NPM and ATO have emerged as significant value drivers. Out of both value drivers, NPM exerts relatively heavy weight on ROE. EM is not a significant value driver in post-merger financial performance. We accept the hypotheses related to NPM and ATO as they are significant value drivers, and reject the EPM as a strong value driver.

The results of this paper, with reference to operating

performance was similar to the other one (Ramakrishnan, K. (2008)), where the post-merger operating performance was analysed. Firms showed improved operating margins, likely due to economies of scale lowering fixed costs. However, unchanged assets turnover suggests no evidence of increased asset utilization efficiency. Out of the 9 studies considered for the Literature review that relied on accounting-based metrics to evaluate the post-merger performance, it is found that 5 of them have indicated positive performance improvements. The rest of the studies indicate that mergers led to a decline in the combined firm's performance. Since 44.44% of the studies show deterioration in the performance, and particularly because 3 out of these 4 studies are from Asian countries, the overall impact of the merger remains unclear. The results of some studies on M & A of Indian firms indicated a mixed outcome—while there was marginal improvement in profitability ratios for mergers in pharmaceuticals and textiles sectors, others, such as manufacturing and financial services, experienced declines which was similar to the findings of this research paper.

### 6.3 Combined Analysis

The empirical findings from both operating and financial performance assessments indicate that while acquiring firms experienced modest improvements post-merger, these changes were not statistically significant. This suggests that mergers, in the observed Indian context, did not uniformly translate into superior long-term performance outcomes. From an operating performance perspective, the slight increase in the industry-adjusted OCF/OA ratio post-merger (+0.005) was not statistically significant ( $p = 0.169$ ). Similarly, ROE, a measure of financial performance, showed a slight improvement (+0.24%) following the merger; however, this difference was not statistically significant ( $p = 0.290$ ).

However, the Multiple regression analysis of the decomposition of OCF/OA revealed notable insights. Both the components, OCF/S and S/OA, have emerged as significant value drivers. Out of both value drivers, OCF/S has contributed relatively more to operating performance. With reference to Dupont ROE, it can be inferred that NPM and ATO have emerged as significant value drivers. Both value drivers contributed relatively more to ROE. EM is not a significant value driver in post-merger financial performance.

## 7 Conclusion

The results show that mergers in the Indian context do not ensure appreciable gains in operating or financial performance. According to these findings, since both Operating profit margin and Net Profit Margin have

relatively more weights, post-merger integration should focus more on effective utilisation of assets and Leverage of Debt. The value drivers should be analysed at the operational level and linked to suitable performance measures. The decision and valuation of Mergers should be based on the productivity of assets. These results have practical implications for managers and policymakers. Organisations considering a merger should focus on how to integrate their operations after the merger and how to achieve operating and financial synergies. Policymakers should also be careful about assuming that mergers will always be good for the economy, especially in domains where integration continues to remain difficult.

## 8. Limitation and Future Scope

The study has considered only domestic deals in India. The study also included the group mergers. A study on non-group mergers may give more strategic insights. Also, a comparative analysis between group vs non group can be explored in the future. The study considered only accounting metrics, and metrics based on stock prices were not considered. To get a better understanding of what makes mergers successful in India, future research could look at a longer time frame, different industries, or cross-border transactions. A comprehensive measure of accounting metrics and stock prices may give Broder insights.

## APPENDIX

### Appendix 1: A List of 66 Merger Deals of the Financial year 01/04/2020 to 31/03/2021

S.No	Acquirer	Target
1	A P L Apollo Tubes Ltd.	Shri Lakshmi Metal Udyog Ltd. [Merged] Apollo Tricoat Tubes Ltd. [Merged]
2	Aarnav Fashions Ltd.	Gopi Synthetics Pvt. Ltd. [Merged] Aarnav Synthetics Pvt. Ltd. [Merged] Aarnav Textile Mills Pvt. Ltd. [Merged] Gopi Synthetics Pvt. Ltd. [Merged] Aarnav Textile Mills Pvt. Ltd. [Merged]
3	Accel Ltd.	Accel I T Services Ltd. [Merged] Computer Factory (India) Pvt. Ltd. [Merged]
4	Adani Ports & Special Economic Zone Ltd.	Brahmi Tracks Mgmt. Services Pvt. Ltd. [Merged]
5	Bhandari Hosiery Exports Ltd.	Tikani Exports Ltd.
6	Bharat Petroleum Corpn. Ltd.	Bharat Gas Resources Ltd. [Merged]
7	Blue Jet Healthcare Ltd.	Blue Circle Organics Pvt. Ltd. [Merged]
8	Bodal Chemicals Ltd.	Trion Chemicals Pvt. Ltd. [Merged]
9	C C L Products (India) Ltd.	C C L Beverages Pvt. Ltd. [Merged]
10	Chalet Hotels Ltd.	Belaire Hotels Pvt. Ltd. [Merged] Seapearl Hotels Pvt. Ltd. [Merged]
11	Container Corpn. Of India Ltd.	Punjab Logistics Infrastructure Ltd. Sidcul Concor Infra Co. Ltd. Concor Air Ltd.
12	Coromandel International Ltd.	Coromandel Sqm (India) Pvt. Ltd. [Merged]
13	Dalmia Bharat Ltd.	Murli Industries Ltd. [Merged]
14	Dalmia Bharat Sugar & Inds Ltd.	Himshikhar Investment Ltd. [Merged]
15	Danlaw Technologies India Ltd.	Danlaw Electronics Assembly Ltd. [Merged]
16	E P L Ltd.	Creative Stylo Packs Pvt. Ltd. [Merged]
17	Electrosteel Castings Ltd.	Srikalahasthi Pipes Ltd. [Merged]
18	Equinox India Devp. Ltd.	Nam Estates Pvt. Ltd. [Merged] Embassy One Commercial Property Devp. Pvt. Ltd. [Merged]
19	Forbes & Co. Ltd.	Eureka Forbes Ltd. [Merged]
20	G T P L Hathway Ltd.	G T P L City Channel Pvt. Ltd. [Merged] G T P L Shivshakti Network Pvt. Ltd. [Merged]
21	Gateway Distriparks Ltd.	Gateway Distriparks Ltd. [Merged]
22	Genus Paper & Boards Ltd.	N S Papers Ltd. [Merged]
23	Gujarat Ambuja Exports Ltd.	Mohit Agro Commodities Processing Pvt. Ltd. [Merged]
24	Gulshan Polyols Ltd.	Gulshan Holdings Pvt. Ltd. [Merged] East Delhi Importers & Exporters Pvt. Ltd. [Merged]
25	H T Media Ltd.	Digicentent Ltd. Next Mediaworks Ltd.

		H T Mobile Solutions Ltd. [Merged]
26	I F B Industries Ltd.	Trishan Metals Pvt. Ltd. [Merged]
27	I T C Ltd.	Sunrise Foods Pvt. Ltd. [Merged]
		Hobbits International Foods Pvt. Ltd. [Merged]
		Sunrise Sheetgrah Pvt. Ltd. [Merged]
28	Indo Count Inds. Ltd.	Pranavadiya Spinning Mills Ltd. [Merged]
29	Info Edge (India) Ltd.	Highorbit Careers Pvt. Ltd. [Merged]
30	J H S Svendgaard Laboratories Ltd.	J H S Svendgaard Brands Ltd. [Merged]
31	Jay Shree Tea & Inds. Ltd.	Majhulia Sugar Inds. Pvt. Ltd. [Merged]
32	Jindal Stainless Ltd.	Jindal Stainless (Hisar) Ltd. [Merged]
		Jindal Stainless Corporate Mgmt. Services Pvt. Ltd. [Merged]
		J S L Lifestyle Ltd. [Merged]
		J S L Media Ltd. [Merged]
		Jindal Stainless Corporate Mgmt. Services Pvt. Ltd. [Merged]
33	Jupiter Wagons Ltd.	Jupiter Wagons Ltd. [Merged]
34	Kalyan Jewellers India Ltd.	Kalyan Jewellers Salem Pvt. Ltd. [Merged]
35	Ltimindtree Ltd.	Syncordis Software Services India Pvt. Ltd. [Merged]
36	Madhav Infra Projects Ltd.	R B Realestate Pvt. Ltd.
		Madhav Urja Pvt. Ltd.
		Madhav Heights Pvt. Ltd.
37	Mallcom (India) Ltd.	Best Safety Pvt. Ltd. [Merged]
38	Marico Ltd.	Marico Consumer Care Ltd. [Merged]
39	Moschip Technologies Ltd.	Maven Systems Pvt. Ltd. [Merged]
40	N B C C (India) Ltd.	N B C C International Ltd.
41	N H P C Ltd.	Lanco Teesta Hydro Power Ltd. [Merged]
42	Nahar Industrial Enterprises Ltd.	Cotton County Retail Ltd. [Merged]
43	Naperol Investments Ltd.	Naperol Investments Ltd. [Merged]
44	Nilkamal Ltd.	Nilkamal Storage Systems Pvt. Ltd. [Merged]
45	Onward Technologies Ltd.	Onward Eservices Ltd. [Merged]
46	Orchid Pharma Ltd.	Dhanuka Pharmaceuticals Pvt. Ltd. [Merged]
47	Pakka Ltd.	Yash Compostables Ltd. [Merged]
48	Patel Engineering Ltd.	Patel Energy Resources Ltd. [Merged]
		P E L Power Ltd. [Merged]
		P E L Port Pvt. Ltd. [Merged]
		Patel Energy Projects Pvt. Ltd. [Merged]
		Patel Energy Assignment Pvt. Ltd. [Merged]
		Patel Energy Operations Pvt. Ltd. [Merged]
		Jayshe Gas Power Pvt. Ltd. [Merged]
		Patel Thermal Energy Pvt. Ltd. [Merged]
		Patel Hydro Power Pvt. Ltd. [Merged]
		Patel Concrete & Quarries Pvt. Ltd. [Merged]
		Patel Engineers Pvt. Ltd. [Merged]
		Phedra Projects Pvt. Ltd. [Merged]
		Zeus Minerals Trdg. Pvt. Ltd. [Merged]

49	Prataap Snacks Ltd.	Avadh Snacks Pvt. Ltd. [Merged]
50	Ravindra Energy Ltd.	Agri Venture Trdg. & Invst. Pvt. Ltd. [Merged]
51	Samvardhana Motherson Intl. Ltd.	Samvardhana Motherson Intl. Ltd. [Merged]
52	Sandesh Ltd.	Sandesh Digital Pvt. Ltd.
53	Sangam (India) Ltd.	Sangam Lifestyle Ventures Ltd. [Merged]
54	Saurashtra Cement Ltd.	Parsec Enterprises Pvt. Ltd. [Merged]
55	Shree Renuka Sugars Ltd.	Gokak Sugars Ltd. Gokak Sugars Ltd.
56	Sun Pharmaceutical Inds. Ltd.	Sun Pharma Global F Z E [Merged]
57	Tata Power Co. Ltd.	Coastal Gujarat Power Ltd. [Merged] Tata Power Solar Systems Ltd. [Merged]
58	Teamlease Services Ltd.	Evolve Technologies & Services Pvt. Ltd. [Merged]
59	Tech Mahindra Ltd.	Tech Mahindra Business Services Ltd. [Merged] Born Commerce Pvt. Ltd. [Merged]
60	Tierra Agrotech Ltd.	Grandeur Products Ltd. [Merged]
61	Vardhman Textiles Ltd.	V M T Spinning Co. Ltd. [Merged] Vardhman Nisshinbo Garments Co. Ltd. [Merged]
62	Vinati Organics Ltd.	Veeral Additives Pvt. Ltd. [Merged]
63	Voltamp Transformers Ltd.	Kunjai Investments Pvt. Ltd. [Merged]
64	Wep Solutions Ltd.	W E P Digital Services Ltd. [Merged]
65	Yuken India Ltd.	Yuflow Engineering Pvt. Ltd. [Merged]
66	Zuari Industries Ltd.	Gobind Sugar Mills Ltd. [Merged]

## Appendix 2: List of Acquiring Companies

1.	A P L Apollo Tubes Ltd.
2.	Sangam (India) Ltd.
3.	Indo Count Inds. Ltd.
4.	Bhandari Hosiery Exports Ltd.
5.	E P L Ltd.
6.	Accel Ltd.
7.	Ltimintree Ltd.
8.	Moschip Technologies Ltd.
9.	Onward Technologies Ltd.
10.	Tech Mahindra Ltd.
11.	Shree Renuka Sugars Ltd.
12.	Dalmia Bharat Sugar & Inds Ltd.
13.	I T C Ltd.

14.	Bharat Petroleum Corpn. Ltd.
15.	J H S Svendgaard Laboratories Ltd.
16.	Pakka Ltd.
17.	Genus Paper & Boards Ltd.
18.	Gujarat Ambuja Exports Ltd.
19.	Info Edge (India) Ltd.
20.	Sandesh Ltd.
21.	H T Media Ltd.
22.	Chalet Hotels Ltd.
23.	Saurashtra Cement Ltd.
24.	Dalmia Bharat Ltd.
25.	N B C C (India) Ltd.
26.	Naperol Investments Ltd.
27.	Teamlease Services Ltd.
28.	C C L Products (India) Ltd.
29.	Coromandel International Ltd.
30.	N H P C Ltd.
31.	Tata Power Co. Ltd.
32.	Vardhman Textiles Ltd.
33.	Orchid Pharma Ltd.
34.	Sun Pharmaceutical Inds. Ltd.
35.	Nahar Industrial Enterprises Ltd.
36.	Bodal Chemicals Ltd.
37.	Gulshan Polyols Ltd.
38.	Vinati Organics Ltd.
39.	Yuken India Ltd.
40.	Kalyan Jewellers India Ltd.
41.	Ravindra Energy Ltd.
42.	Nilkamal Ltd.
43.	Voltamp Transformers Ltd.
44.	Aarnav Fashions Ltd.
45.	Jindal Stainless Ltd.
46.	Jay Shree Tea & Inds. Ltd.

47.	Adani Ports & Special Economic Zone Ltd.
48.	Marico Ltd.
49.	Prataap Snacks Ltd.
50.	Zuari Industries Ltd.
51.	G T P L Hathway Ltd.
52.	Tierra Agrotech Ltd.

### Appendix 3: Industry Classification of Acquiring Firms

S.NO	Industry group
1	Business services & consultancy
2	Cement
3	Cloth
4	Coffee
5	Computer software
6	Conventional electricity
7	Cotton & blended yarn
8	Diversified cotton textile
9	Diversified non-financial services
10	Drugs & pharmaceuticals
11	Fertilisers
12	Gems & jewellery
13	General-purpose machinery
14	Generators, transformers & switchgears
15	Hotels & restaurants
16	Industrial construction
17	ITES
18	Media-broadcasting
19	Media-print
20	Organic chemicals
21	Other agricultural products
22	Other automobile ancillaries
23	Other chemical products
24	Other domestic appliances
25	Other electronics
26	Other leather & related products
27	Other transport equipment & ancillaries
28	Paper & newsprint
29	Personal & home care products
30	Plastic furniture, floorings & miscellaneous items

31	Plastic packaging goods
32	Processed foods
33	Railway transport services
34	Readymade garments
35	Refinery
36	Shipping transport infrastructure services
37	Steel
38	Steel pipes & tubes
39	Sugar
40	Tea
41	Tobacco products
42	Vegetable oils & products
43	Wholesale trading

**Appendix 4: List of deals of companies with the Aggregate Industry-adjusted Operating performance for both pre- and post-period.**

Company Name	Industry	PRE	POST
Aarnav Fashions Ltd.	Readymade garments	0.445744	0.37739
Accel Ltd.	Computer software	-0.03554	-0.00879
Adani Ports & SEZ	Shipping transport infrastructure services	0.005158	-0.01725
A P L Apollo Tubes Ltd.	Steel pipes & tubes	0.210735	0.11996
Bharat Petroleum Corpn. Ltd.	Refinery	-0.01587	0.31932
Bodal Chemicals Ltd.	Organic chemicals	-0.20062	-0.20638
C C L Products (India) Ltd.	Coffee	-0.00321	-0.00757
Chalet Hotels Ltd.	Hotels & restaurants	-0.01745	0.028584
Coromandel International Ltd.	Fertilisers	0.024419	0.044568
Dalmia Bharat Ltd.	Business services & consultancy	-0.15471	-0.0206
Dalmia Bharat Sugar & Inds Ltd.	Sugar	-0.75425	-0.40557
E P L Ltd.	Plastic packaging goods	-0.4742	-0.32878
Electrosteel Castings Ltd.	Steel pipes & tubes	0.065226	-0.03602
G T P L Hathway Ltd.	Media-broadcasting	-0.07843	-0.11116
Genus Paper & Boards Ltd.	Paper & newsprint	-0.0706	-0.10231

Gujarat Ambuja Exports Ltd.	Other agricultural products	-0.01958	0.010533
Gulshan Polyols Ltd.	Organic chemicals	0.262064	0.230134
H T Media Ltd.	Media-print	-0.02466	-0.02641
I T C Ltd.	Tobacco products	0.011901	0.00431
Indo Count Inds. Ltd.	Cloth	-0.01259	-0.00334
Info Edge (India) Ltd.	ITES	0.080592	0.231593
J H S Svendgaard Laboratories Ltd.	Personal & home care products	0.005418	0.012552
Jay Shree Tea & Inds. Ltd.	Tea	-0.57885	-0.70259
Jindal Stainless Ltd.	Steel	0.001007	0.000274
Kalyan Jewellers India Ltd.	Gems & jewellery	1.180206	-1.5424
Ltimindtree Ltd.	Computer software	-0.01071	-0.00648
Marico Ltd.	Vegetable oils & products	0.021281	0.065921
Moschip Technologies Ltd.	Computer software	-0.15622	0.056076
N B C C (India) Ltd.	Business services & consultancy	-0.00148	0.023962
Nahar Industrial Enterprises Ltd.	Diversified cotton textile	-3.95885	-0.78631
Naperol Investments Ltd.	Business services & consultancy	-2.50303	-0.51485
N H P C Ltd.	Conventional electricity	-0.11204	-0.04434
Nilkamal Ltd.	Plastic furniture, floorings & miscellaneous items	0.038708	0.098462
Onward Technologies Ltd.	Computer software	-0.08695	-0.01765
Orchid Pharma Ltd.	Drugs & pharmaceuticals	-1.0158	-0.34665
Pakka Ltd.	Paper & newsprint	0.087102	0.09133
Prataap Snacks Ltd.	Processed foods	0.012425	0.042316
Ravindra Energy Ltd.	Industrial construction	0.066404	0.028441
Sandesh Ltd.	Media-print	0.009889	-0.00065
Sangam (India) Ltd.	Cloth	0.037184	0.024885

Saurashtra Cement Ltd.	Cement	0.108652	-0.0576
Shree Renuka Sugars Ltd.	Sugar	-0.07093	-0.05673
Sun Pharmaceutical Inds. Ltd.	Drugs & pharmaceuticals	-0.14712	-0.23515
Tata Power Co. Ltd.	Conventional electricity	-0.02286	-0.02676
Teamlease Services Ltd.	Business services & consultancy	-0.03459	-0.04919
Tech Mahindra Ltd.	Computer software	0.028999	0.025424
Tierra Agrotech Ltd.	Wholesale trading	0.001817	-0.02524
Vardhman Textiles Ltd.	Cotton & blended yarn	-80.3176	-29.3377
Vinati Organics Ltd.	Organic chemicals	-0.01553	-0.0032
Voltamp Transformers Ltd.	Generators, transformers & switchgears	0.000505	0.004713
Yuken India Ltd.	General-purpose machinery	-0.0457	-0.04275
Zuari Industries Ltd.	Processed foods	0.156241	0.174265

Note:- The above table was created by the investigators for the analysis of the study.

### Appendix 5: Values for Dupont breakdown for Operating Performance

Pre-Operating Profit Margin	Pre-Asset Turnover	Pre-Operating Metric	Post-Operating Profit Margin	Post- Assets Turnover	Post-Operating Metric
0.0316	2.2692	0.0717	0.0557	3.0722	0.1710
0.0637	1.7683	0.1127	0.0582	1.8436	0.1073
0.0794	1.1185	0.0888	0.0573	0.7827	0.0449
0.0913	1.2585	0.1149	0.0394	1.3939	0.0550
0.2591	0.8711	0.2257	0.1755	0.8030	0.1409
0.0686	0.9155	0.0628	0.0334	1.2169	0.0406
0.0612	1.1568	0.0708	0.0848	1.0019	0.0850
0.0853	1.1476	0.0979	0.0796	1.2431	0.0989
0.0735	0.7584	0.0557	0.0497	0.7133	0.0355
-0.9023	0.0189	-0.0171	0.0756	0.0175	0.0013
0.0195	0.7910	0.0154	0.0242	0.7678	0.0186
0.2840	0.5669	0.1610	0.0501	0.1078	0.0054
0.0053	4.3275	0.0229	0.0061	4.6592	0.0284
0.3014	0.2545	0.0767	0.4176	0.2054	0.0858
0.2752	0.3167	0.0871	0.3842	0.1376	0.0529
0.0731	0.3684	0.0269	-0.0777	0.3585	-0.0279
0.0340	0.4729	0.0161	0.2795	0.2872	0.0803

0.0849	2.0689	0.1757	0.0724	1.7121	0.1239
0.0804	0.7200	0.0579	0.0701	0.7412	0.0520
0.2168	0.8713	0.1889	0.1286	1.0012	0.1288
0.0450	0.5620	0.0253	0.0149	0.3535	0.0053
0.1443	0.8177	0.1180	0.1910	0.8793	0.1679
0.0243	2.8370	0.0690	0.0457	2.9958	0.1368
0.1158	0.9278	0.1074	0.1022	1.1116	0.1136
0.1065	1.3495	0.1437	0.0825	1.4511	0.1197
0.1386	1.4477	0.2006	0.1276	1.4818	0.1891
-0.2280	0.3834	-0.0874	0.1000	0.7384	0.0739
0.3916	0.0269	0.0105	0.0920	182.04	16.7405
0.1024	0.6844	0.0700	0.1380	0.7905	0.1091
0.0049	0.5711	0.0028	0.0851	0.9507	0.0809
0.2790	0.6982	0.1948	0.2441	0.8507	0.2076
0.3981	0.1301	0.0518	0.5987	0.0997	0.0597
0.3136	0.1855	0.0582	0.1601	0.3339	0.0535
0.0747	0.7752	0.0579	0.0765	0.8965	0.0686
0.0803	0.9581	0.0770	0.0975	1.1086	0.1081
0.0590	0.1759	0.0104	0.1144	0.4261	0.0488
0.0416	0.2844	0.0118	0.1369	0.4365	0.0597
0.0819	1.2415	0.1017	0.0427	1.3278	0.0567
0.0309	0.7941	0.0245	0.0282	0.8955	0.0252
0.0789	1.0786	0.0851	0.1095	1.1688	0.1280
-0.2443	0.3855	-0.0942	-0.0566	0.1801	-0.0102
0.0423	0.5396	0.0228	0.0938	0.8450	0.0792
0.1455	0.3459	0.0503	0.1223	0.4280	0.0523
0.2048	0.3397	0.0696	0.2726	0.1295	0.0353
0.2054	0.7376	0.1515	0.1257	0.9573	0.1203
0.0823	1.7527	0.1443	0.0537	1.5731	0.0845
0.0482	1.5038	0.0725	0.0534	1.5132	0.0808
0.4101	0.0296	0.0121	0.0688	0.2918	0.0201
-0.4199	1.3750	-0.5774	0.0672	0.8799	0.0591
0.5467	0.1171	0.0640	0.5879	0.0692	0.0407
0.1092	1.0577	0.1155	0.0722	1.5748	0.1137
0.0818	0.6155	0.0504	-0.0029	0.7866	-0.0023
0.1205	1.3966	0.1683	0.1088	1.7155	0.1866
-0.1266	0.8290	-0.1049	-0.1452	0.2914	-0.0423
0.0894	0.4285	0.0383	0.0399	0.7853	0.0313

*Note: The values presented correspond to the companies listed above in the same order.*

The above table was created by the investigators for the analysis of the study.

**Appendix 6: List of deals of companies with the Aggregate Industry-adjusted Financial performance for both pre- and post-period.**

Company Name	Industry	PRE	POST
Aarnav Fashions Ltd.	Readymade garments	0.012834	-0.140726
Accel Ltd.	Computer software	-0.221295	-0.205463
Adani Ports & SEZ	Shipping transport infrastructure services	0.008053	-0.005320
A P L Apollo Tubes Ltd.	Steel pipes & tubes	0.020525	0.037003
Bharat Petroleum Corpn. Ltd.	Refinery	0.064782	0.102895
Bodal Chemicals Ltd.	Organic chemicals	1.037415	0.225115
C C L Products (India) Ltd.	Coffee	0.107601	0.001702
Chalet Hotels Ltd.	Hotels & restaurants	-0.023090	0.019570
Coromandel International Ltd.	Fertilisers	0.204989	0.667456
Dalmia Bharat Ltd.	Business services & consultancy	-0.056291	-0.090083
Dalmia Bharat Sugar & Inds Ltd.	Sugar	0.148475	-0.003346
E P L Ltd.	Plastic packaging goods	0.051240	0.128791
G T P L Hathway Ltd.	Media-broadcasting	-0.026554	0.081581
Genus Paper & Boards Ltd.	Paper & newsprint	-0.238578	-0.140172
Gujarat Ambuja Exports Ltd.	Other agricultural products	0.140194	0.151464
Gulshan Polyols Ltd.	Organic chemicals	0.168859	0.914537
H T Media Ltd.	Media-print	-0.159914	-0.219558
I T C Ltd.	Tobacco products	0.001446	0.003942
Indo Count Inds. Ltd.	Cloth	0.021882	0.079052
Info Edge (India) Ltd.	ITES	-0.026255	0.041915
J H S Svendgaard Laboratories Ltd.	Personal & home care products	-0.378911	-0.247287
Jay Shree Tea & Inds. Ltd.	Tea	-0.084304	0.020056
Jindal Stainless Ltd.	Steel	-0.012336	0.081710

Kalyan Jewellers India Ltd.	Gems & jewellery	3.121852	2.516738
Ltimindtree Ltd.	Computer software	0.050561	-0.042071
Marico Ltd.	Vegetable oils & products	0.012060	0.219347
Moschip Technologies Ltd.	Computer software	-0.512337	-0.263635
N B C C (India) Ltd.	Business services & consultancy	0.092611	0.046503
Nahar Industrial Enterprises Ltd.	Diversified cotton textile	-0.486352	0.063932
Naperol Investments Ltd.	Business services & consultancy	0.157785	-0.006322
N H P C Ltd.	Conventional electricity	0.029023	-0.038331
Nilkamal Ltd.	Plastic furniture, floorings & miscellaneous items	0.128245	0.078421
Onward Technologies Ltd.	Computer software	-0.159878	-0.192385
Orchid Pharma Ltd.	Drugs & pharmaceuticals	0.742491	-0.059607
Pakka Ltd.	Paper & newsprint	-0.053196	0.074025
Prataap Snacks Ltd.	Processed foods	-0.164171	-0.307017
Ravindra Energy Ltd.	Industrial construction	-39.60399	-0.490386
Sandesh Ltd.	Media-print	0.001744	0.051239
Sangam (India) Ltd.	Cloth	-0.032440	0.033642
Saurashtra Cement Ltd.	Cement	-11.64354	-11.004517
Shree Renuka Sugars Ltd.	Sugar	2.187465	0.113175
Sun Pharmaceutical Inds. Ltd.	Drugs & pharmaceuticals	-0.061339	-0.057333
Tata Power Co. Ltd.	Conventional electricity	-0.094055	0.075065
Teamlease Services Ltd.	Business services & consultancy	0.068141	-0.350632
Tech Mahindra Ltd.	Computer software	-0.050424	-0.153169
Tierra Agrotech Ltd.	Wholesale trading	0.432473	-0.401640
Vardhman Textiles Ltd.	Cotton & blended yarn	0.044945	-0.004269
Vinati Organics Ltd.	Organic chemicals	0.828664	0.986811

Voltamp Transformers Ltd.	Generators, transformers & switchgears	0.157082	-0.013275
Yuken India Ltd.	General-purpose machinery	0.179017	-0.129429
Zuari Industries Ltd.	Processed foods	-0.205027	-0.322177

Note:- The above table was created by the investigators for the analysis of the study.

### Appendix 7: Values for the DuPont breakdown for Financial Performance

Company Name	Post-Net Profit Margin	Post-Asset Turnover	Post-Equity Multiplier
Aarnav Fashions Ltd.	0.0176	0.9637	1.0102
Accel Ltd.	0.0323	0.7070	4.1242
Adani Ports & SEZ	0.0873	0.0657	0.1157
A P L Apollo Tubes Ltd.	0.0358	2.8286	1.8963
Bharat Petroleum Corpn. Ltd.	0.0271	2.8924	2.8777
Bodal Chemicals Ltd.	0.0329	10.6726	0.9924
C C L Products (India) Ltd.	0.1065	0.6750	1.7367
Chalet Hotels Ltd.	0.1268	0.1948	3.3907
Coromandel International Ltd.	0.0657	7.8735	1.8001
Dalmia Bharat Ltd.	0.2879	0.0165	1.0885
Dalmia Bharat Sugar & Inds. Ltd.	0.0869	0.7622	1.9315

E P L Ltd.	0.1563	0.6342	2.1135
G T P L Hathway Ltd.	0.0543	0.9573	0.9698
Genus Paper & Boards Ltd.	0.0001	0.6671	1.9091
Gujarat Ambuja Exports Ltd.	0.0793	1.6054	1.2340
Gulshan Polyols Ltd.	0.0410	14.1652	1.7895
H T Media Ltd.	-0.1626	0.3683	2.5545
I T C Ltd.	0.2710	0.8115	1.2554
Indo Count Inds. Ltd.	0.0991	0.9365	1.7949
Info Edge (India) Ltd.	1.6661	0.0966	1.6412
J H S Svendgaard Laboratories Ltd.	-0.1019	0.3635	1.2128
Jay Shree Tea & Inds. Ltd.	0.0166	0.7655	4.0921
Jindal Stainless Ltd.	0.0694	1.4006	0.3424
Kalyan Jewellers India Ltd.	0.8008	31.6119	0.1044
Ltimindtree Ltd.	0.1389	1.3035	1.4234
Marico Ltd.	0.1377	1.6848	1.4281
Moschip Technologies Ltd.	0.0328	0.6472	1.7017
N B C C (India) Ltd.	0.0169	0.7676	4.4980

Nahar Industrial Enterprises Ltd.	0.0464	1.0994	1.8265
Naperol Investments Ltd.	1.7733	0.0811	2.0821
N H P C Ltd.	0.4797	0.0966	2.2730
Nilkamal Ltd.	0.0334	1.5071	0.2165
Onward Technologies Ltd.	0.0587	1.3009	1.4059
Orchid Pharma Ltd.	0.0706	0.4195	2.0094
Pakka Ltd.	0.1237	0.9014	1.9218
Prataap Snacks Ltd.	0.0161	1.5132	0.9653
Ravindra Energy Ltd.	-1.1012	-0.9081	-0.3936
Sandesh Ltd.	0.4073	0.2691	1.0753
Sangam (India) Ltd.	0.0402	1.1781	2.5591
Saurashtra Cement Ltd.	0.0112	1.1039	1.6796
Shree Renuka Sugars Ltd.	-0.0209	0.8258	-14.1595
Sun Pharmaceutical Inds. Ltd.	0.0776	0.4404	1.8083
Tata Power Co. Ltd.	0.1652	0.3215	4.1183
Teamlease Services Ltd.	-0.0153	4.4319	2.1322
Tech Mahindra Ltd.	0.0906	1.1044	1.4642

Tierra Agrotech Ltd.	-0.2128	-4.6992	-0.2804
Vardhman Textiles Ltd.	0.1064	0.8632	1.3417
Vinati Organics Ltd.	0.1949	3.7647	1.5135
Voltamp Transformers Ltd.	0.1558	1.1688	1.0329
Yuken India Ltd.	0.0313	0.8905	1.8613
Zuari Industries Ltd.	0.0202	0.2918	0.5604

The above table was created by the investigators for the analysis of the study.

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