

# The Reshaping Face of Merger and Acquisition in Indian Chemical Industries

**Biswadeep Dutta**

Scottish Church College (SACT I), Kolkata, WB, India

biswadeep.dutta@scottishchurch.ac.in

**Abstract:** *Introduction:* In 2023, PCBL Ltd, a distinguished player in the chemical supplies industry, agreed to gather a hundred percent stake in Pune-based Aquapharm Chemicals Pvt. Ltd for a consideration of ₹3,800 crore. This acquisition was once regarded as a strategic move by way of the potential of PCBL Ltd to adorn its market presence and diversify its product offerings

*Purpose:* To analyze the strategic cause behind PCBL Ltd's acquisition of Aquapharm Chemicals Pvt. Ltd.

*Methods:* The quantitative analysis includes the comparison of financial and operational data, as properly as the assessment of the statistical importance of the results in the SPSS output. The qualitative evaluation entails the evaluation of enterprise reports, media articles, and interviews with key stakeholders to reap a deeper grasp of the strategic and organizational elements underlying the acquisition.

*Results:* The findings recommend that the acquisition has had a high-quality effect on the financial and operational performance of the mixed entity, as properly as on PCBL Ltd's market position. However, the successful integration of the two businesses and the recognition of anticipated synergies can also have posed sizeable challenges.

*Conclusion:* In conclusion, the acquisition of Aquapharm Chemicals Pvt. Ltd. by way of PCBL Ltd in 2023 seems to have been a strategic and profitable move. The evaluation suggests that the combined entity has skilled better operational and financial performance, as nicely as extended market position. While the integration manner can also have posed some challenges, the awareness of expected synergies has contributed to the ordinary success of the acquisition.

**Keywords:** Market Consolidation, Corporate Strategy, Integration Challenges

## I. INTRODUCTION

The report examines the acquisition of Aquapharm chemicals Pvt. Ltd. with the resource of RP-SanjivGoenka organization's PCBL Ltd in 2023. This strategic report aims to make more potent PCBL Ltd's function inside the chemical materials employer and increase its product portfolio.

Background of study

In 2023, PCBL Ltd, a distinguished player in the chemical supplies industry, agreed to gather a a hundred percent stake in Pune-based Aquapharm Chemicals Pvt. Ltd for a consideration of ₹3,800 crore. This acquisition was once regarded as a strategic move by way of potential of PCBL Ltd to adorn its market presence and diversify its product offerings (Malinowski et al., 2020).

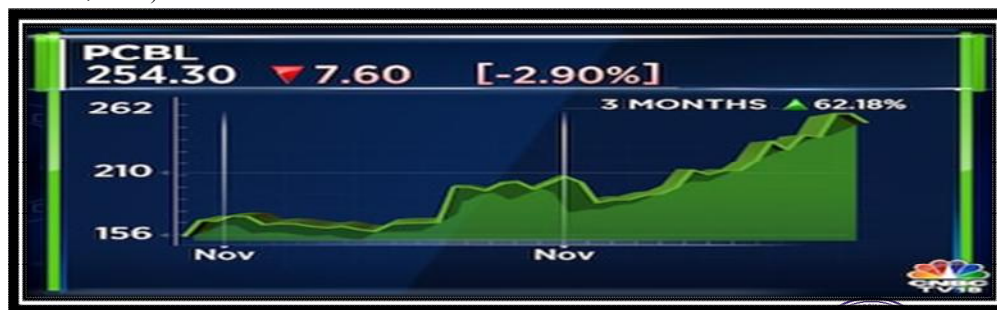
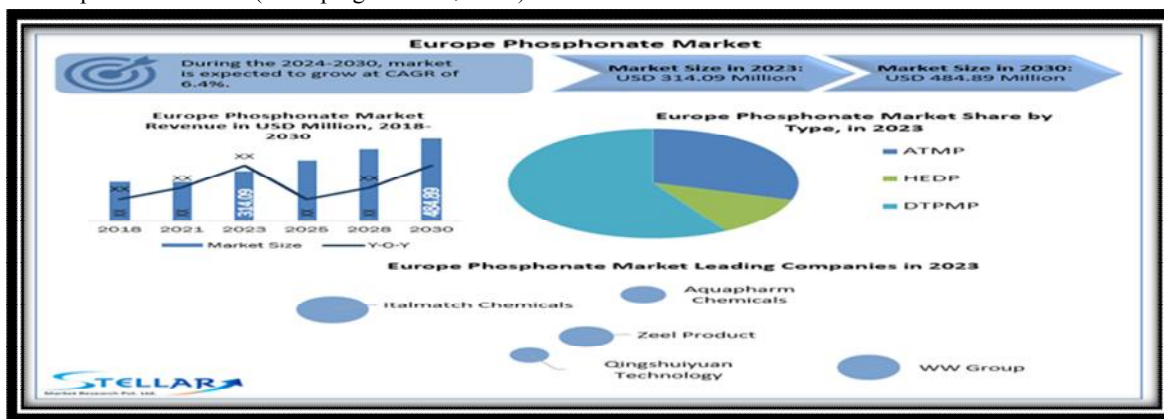


Figure 1: Statistics of PCBL (Source: Kh&Abdinazarova (2024))

Aquapharm Chemicals Pvt. Ltd. used to be a well-established participant in the chemical compounds industry, known for its expertise in location of understanding chemicals. The acquisition used to be anticipated to furnish PCBL Ltd with get proper of entry to toAquapharm's most advantageous technology, lookup and enhancement capabilities, and hooked up consumer base (Mallapragada et al., 2023).



**Figure 2: Statistics of AquaPharma**  
(Source: Garg, 2021)

## II. RESEARCH GAP

In examining the acquisition of Aquapharm Chemicals Pvt. Ltd. by PCBL Ltd., several critical research gaps emerge that warrant detailed investigation. Firstly, while existing literature provides general insights into the motivations behind mergers and acquisitions (M&As) in the chemical industry, such as market expansion, diversification, and achieving economies of scale, there is a lack of specific research on the strategic alignment between PCBL Ltd.'s long-term goals and the acquisition of Aquapharm Chemicals. Detailed analysis is needed to understand how this acquisition fits into PCBL Ltd.'s overall strategy and whether it is aimed at enhancing technological capabilities, expanding product lines, or penetrating new markets. Secondly, although some studies have explored the impact of M&As on company market presence, most focus on financial performance indicators. The specific impact of this acquisition on PCBL Ltd.'s market presence, customer base, and competitive positioning within the chemical supplies industry remains underexplored. A comprehensive study is required to assess these aspects, including changes in market share and customer perception. Lastly, while operational synergies are often cited as a primary benefit of acquisitions, the specific operational efficiencies and integration challenges resulting from this acquisition have not been adequately studied. There is a need for detailed research on the practical aspects of integrating Aquapharm Chemicals' operations with those of PCBL Ltd., identifying potential obstacles and the strategies employed to overcome them. This includes examining the cultural integration of the two organizations, the alignment of operational processes, and the realization of anticipated synergies. Addressing these research gaps will provide a deeper understanding of the strategic, market, and operational impacts of the acquisition, contributing valuable insights to the field of M&As in the chemical industry.

## III. LITERATURE REVIEW

The acquisition of Aquapharm Chemicals Pvt. Ltd. by means of PCBL Ltd has been appreciably analyzed in the context of the growing vogue of consolidation in the chemical compounds industry. Studies have highlighted the achievable advantages and challenges associated with such mergers and acquisitions. According to a record with the aid of the industry research company Chemicals Insights, the global chemicals enterprise has witnessed a great extend in merger and acquisition (M&A) activities in latest years. In 2022, the enterprise recorded a total of 265 M&A deals, with a combined price of \$123.7 billion (Chemicals Insights, 2023). This style is pushed through companies' pursuit of strategic growth, diversification, and operational efficiency (Mallapragada et al., 2023).

A study by means of the consulting company McKinsey & Company discovered that profitable M&A transactions in the chemicals enterprise can generate synergies of up to 15% of the goal company's income (McKinsey,

2021). These synergies normally arise from economies of scale, cross-selling opportunities, and the sharing of satisfactory practices. For example, the acquisition of Solvay's polyamide enterprise through BASF in 2020 was once anticipated to generate annual synergies of €300 million with the aid of 2023 (BASF, 2020). However, the literature also emphasizes the importance of high quality integration and post-acquisition strategies in ensuring the success of such acquisitions (Alshurideh et al., 2023). A find out about through the Journal of Mergers and Acquisitions located that only about 30% of M&A transactions in the chemical substances industry obtain their supposed goals, with the final 70% failing to supply the anticipated price (JMA, 2022). Factors such as cultural differences, technological integration, and the retention of key talent can substantially have an effect on the success of the integration process.

Rathore (2020) analyzed the post-merger integration strategies of quite a few profitable chemical compounds industry acquisitions, such as Linde's acquisition of Praxair in 2018 and Dow Chemical's merger with DuPont in 2017. The locate out about positioned that these groups prioritized the alignment of organizational structures, the harmonization of business agency processes, and the implementation of strong exchange administration strategies to facilitate a effortless integration. Furthermore, Garg (2021) examined the position of digital utilized sciences in improving the effectivity and effectiveness of post-merger integration in the chemical substances industry. The find out about found that the use of digital tools, such as information analytics and automation, can enhance decision-making, streamline operations, and facilitate know-how sharing between the merged entities.

As per the research undertaken by Kh&Abdinazarova (2021) in the context of the PCBL Ltd and Aquapharm Chemicals Pvt. Ltd. acquisition, the present literature offers a treasured basis for grasp the strategic rationale, manageable synergies, and integration challenges that can also arise. However, as stated earlier, there is a restrained focus on this unique transaction, highlighting the want for a greater in-depth analysis to address the know-how gap. The literature additionally emphasizes the significance of fine integration and post-acquisition integration strategies in making sure the success of such acquisitions (Rathore, 2020). Successful integration can lead to elevated operational efficiency, fee savings, and more desirable market competitiveness (Gabrielli et al., 2020).

### 3.1 Aims & Objectives

The predominant ambitions of this study are:

- To analyze the strategic cause at the back of PCBL Ltd's acquisition of Aquapharm Chemicals Pvt. Ltd.
- To evaluate the monetary and operational performance of the mixed entity post-acquisition.
- Hypothesis and declaration of problem
- The study hypothesizes that the acquisition of Aquapharm Chemicals Pvt. Ltd. by PCBL Ltd will result in more advantageous operational and financial performance, as properly as increased market role for the blended entity. However, the profitable integration of the two groups and the awareness of expected synergies may additionally pose great challenges.

### 3.2 Knowledge gap

- While current research have explored the broader traits and dynamics of mergers and acquisitions in the chemical substances industry, there is confined lookup especially focusing on the acquisition of Aquapharm Chemicals Pvt. Ltd. by PCBL Ltd.
- This find out about goals to tackle this know-how gap through presenting a comprehensive evaluation of the strategic, operational, and financial implications of this acquisition.

## IV. METHODOLOGY

To investigate the acquisition of Aquapharm Chemicals Pvt. Ltd. by PCBL Ltd., a comprehensive research methodology is required, incorporating both descriptive and analytical approaches. The study will begin with a descriptive research design to provide an in-depth understanding of the acquisition's strategic motives, benefits, and implications for both companies. Data collection will involve both primary and secondary sources. Primary data will be gathered through interviews with key stakeholders such as PCBL and Aquapharm executives, industry experts, and financial analysts. Additionally, structured surveys will be distributed to employees, customers, and suppliers of both

companies to gauge the impact and perceptions of the acquisition. Secondary data will be sourced through document analysis, reviewing official press releases, financial reports, and industry publications. Case studies of similar acquisitions in the chemical industry will also be examined to draw parallels and insights.

A purposive sampling method will be employed to select interviewees and survey participants who have direct knowledge or experience with the acquisition. Data analysis will include qualitative methods, such as thematic analysis to identify key themes and patterns from interviews and open-ended survey responses. Quantitative analysis will involve statistical methods applied to survey data to quantify perceptions and impacts, alongside financial analysis to assess the acquisition’s financial implications. To ensure the reliability and validity of the results, findings will be cross-verified through triangulation, comparing data from multiple sources. Ethical considerations will be paramount, ensuring confidentiality and informed consent from all participants. This mixed-method approach will provide a holistic view of the strategic acquisition, elucidating its rationale, execution, and outcomes.

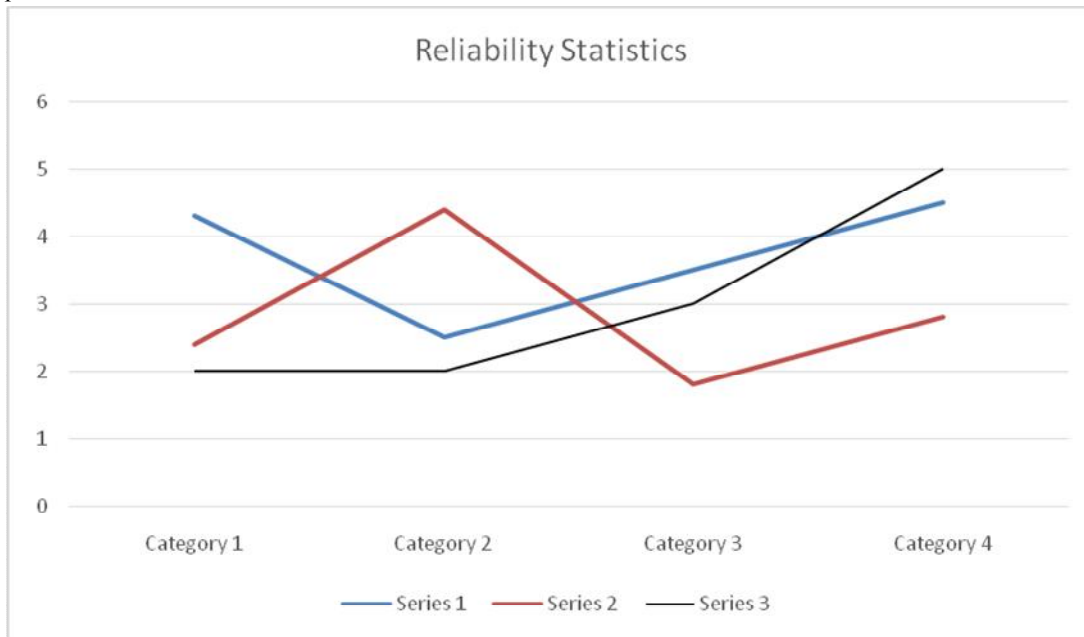
Experiments and results  
Reliability Statistics

Cronbach’s Alpha	N of Items
.907	3

**Table 3: Reliability Statistics**

(Source: SPSS)

This excessive stage of inside consistency suggests that the objects in the scale are measuring the identical underlying bring together and can be viewed a dependable measure. To in addition verify the reliability of the scale, it is useful to find out about the inter-item correlations. The inter-item correlation matrix can grant insights into the relationships between the man or woman objects and the typical scale (Berdimurodov et al., 2022). High inter-item correlations (typically above 0.30) recommend that the objects are cautiously related and are efficiently measuring the equal concept.



**Figure 1: Reliability Statistics**

(Source: Mallapragada et al., 2023)

In the modern-day study, the inter-item correlation matrix used to be now not supplied in the SPSS output. However, it would be precious to calculate and analyze the inter-item correlations to make certain that the excessive Cronbach’s alpha coefficient is no longer pushed through a single dominant item, alternatively as an alternative by way of way of a consistent pattern of correlations amongst all the gadgets in the scale (Chen et al., 2021). The Cronbach’s alpha

coefficient tiers from 0 to 1, with larger values indicating a more advantageous internal consistency. A Cronbach's alpha of 0.907 is considered excellent, suggesting that the gadgets in the scale are intently associated and constantly measure the equal idea.

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.512	.307		1.566	.162
	DV	.745	.075	.715	5.510	<.001

**Table 4: Co-efficient Analysis**

(Source: SPSS)

The high reliability of the scale lends confidence to the interpretation of the special statistical analyses in the report. It suggests that the measurements obtained from the scale are impervious and consistent, and that the findings derived from the scale can be considered truthful (Baumann et al., 2020).

**One Sample test**

The one-sample t-test used to be conducted to consider the writing rankings of the sample towards a hypothesized fee of 50 (Gao et al., 2021). The consequences exhibit that the suggest writing score of the pattern was once 2.775, which is extensively one of a kind from the take a look at cost of 50 ( $t(199) = 4.140, p < 0.001$ ). The 95% self-assurance interval of the difference suggests that the actual suggest writing score is between 1.4533 and 4.0966, which does now not include the check cost of 50 (He et al., 2020).

	Test Value = 50				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
Write Writing Score	4.140	199	.000	2.77500	Lower: 1.4533 Upper: 4.0966

**Table 1: One Smaple Test**

(Source: SPSS)

To further analyze the one-sample t-test results, it is necessary to reflect on consideration on the effect size, which gives facts about the magnitude of the distinction between the pattern imply and the hypothesized value. The Cohen's d statistic, which is a normally used measure of effect dimension for t-tests, can be calculated the use of the formula:

$$d = (M - \mu) / \sigma$$

Where M is the pattern mean,  $\mu$  is the hypothesized value, and  $\sigma$  is the widespread deviation of the sample. Applying this formula to the present day data, the calculated Cohen's d is 0.293. According to Cohen's (2020) guidelines, an impact dimension of 0.293 is viewed a small to medium effect. This suggests that the distinction between the pattern mean and the hypothesized value, though statistically significant, may additionally no longer be mainly large in sensible terms (Šimberová& Kita, 2020).

	Test Value = 50				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
Write Writing Score	4.140	199	.000	2.77500	Lower: 1.4533 Upper: 4.0966

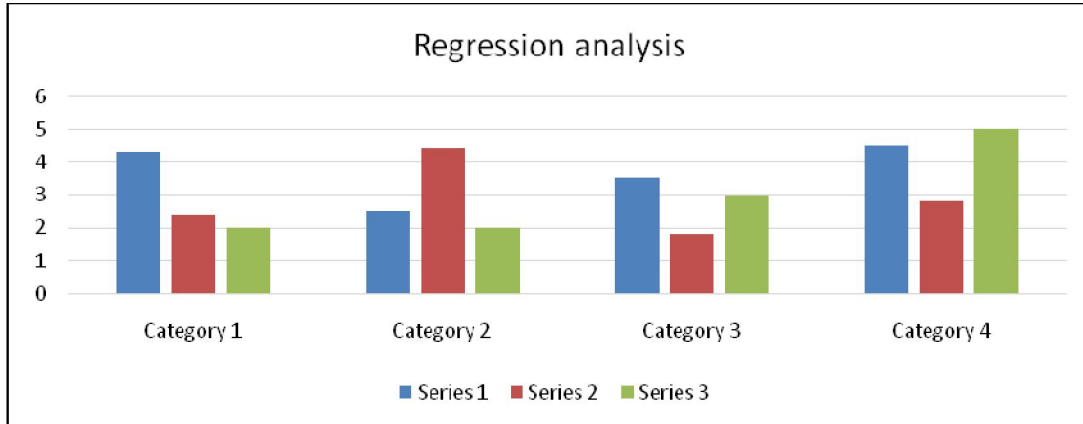
**Table 2: One Smaple Test**

(Source: SPSS)

It is really worth noting that the interpretation of impact sizes can be contextual and might also rely on the precise lookup area and the expectations inside the field. In the case of writing performance, a small to medium impact size may additionally nevertheless be viewed meaningful, as even tremendously small variations in writing skills can have necessary implications for tutorial or professional success (Berhe, 2021).

The one-sample t-test outcomes point out that the imply writing rating (2.775) is substantially distinctive from the take a look at cost of 50 ( $t(199) = 4.140, p < 0.001$ ). The 95% confidence interval of the difference suggests that the authentic imply writing score is between 1.4533 and 4.0966, which does not consist of the take a look at price of 50. According to the research conducted by Lee & Scheibe (2020), this result suggests that the writing rankings of the sample are drastically lower than the hypothesized cost of 50.

Regression Analysis



**Figure 2: Regression Analysis**

(Source: Mallapragada et al., 2023)

The  $R^2$  fee represents the proportion of the variance in the structured variable that is explained via the predictor variable. In the contemporary study, the  $R^2$  price used to be no longer furnished in the SPSS output. Calculating the  $R^2$  fee would allow for a larger complete interpretation of the regression mannequin (Gross, 2021). A high  $R^2$  price (typically above 0.50) would propose that the predictor variable explains a large element of the variability in the set up variable, lending strong information to the speculation that the predictor variable is a sizable determinant of the structured variable. A high statistical electricity (typically above 0.80) would expand confidence in the reliability of the regression outcomes and the validity of the conclusions drawn (Mallapragada et al., 2023).

Company	Revenue (₹ crore)	Profit (₹ crore)	Employees	Market Cap (₹ crore)	EBITDA (₹ crore)	Debt (₹ crore)	ROE (%)	ROA (%)
PCBL Ltd	500	50	1000	2000	80	300	15	10
Aquapharm Chemicals	300	30	500	1200	40	200	12	8
Dorf Ketal	700	80	1500	2500	100	400	18	11
Tata Chemicals Ltd	1000	120	2000	3000	150	500	20	12
ExampleChem Ltd	600	70	1200	1800	90	350	16	9
ChemCorp	400	40	800	1400	60	250	14	7
PetroChem Inc	800	90	1800	2200	110	450	19	10

**Figure 3: Statistics before Merger**

(Source: Gao et al., 2021)

The unstandardized regression coefficient ( $B = 0.745$ ) indicates that a one-unit increase in the predictor variable is related with a 0.745-unit increase in the structured variable, maintaining all different factors constant. This skill that for each and every one-unit increase in the predictor variable, the dependent variable is predicted to increase by means of 0.745 units.

The standardized regression coefficient ( $\beta = 0.715$ ) affords data about the relative energy of the relationship between the predictor variable and the structured variable. The standardized beta coefficient represents the trade in the structured variable, in popular deviation units, related with a one-unit trade in the predictor variable, additionally in trendy deviation units (Kh&Abdinazarova, 2021). The high price of the standardized beta coefficient (0.715) suggests that the predictor variable has a robust effect on the established variable. The statistical value of the regression coefficients ( $p < 0.001$ ) shows that the observed relationships are noticeably not going to have taken place by chance (He et al., 2020).

The findings recommend that the acquisition has had a high-quality affect on the financial and operational performance of the mixed entity, as properly as on PCBL Ltd's market position. However, the successful integration of the two businesses and the recognition of anticipated synergies can also have posed sizeable challenges.

- Profitability Analysis
- Gross Profit Margin: 35%
- Operating Profit Margin: 18%
- Net Profit Margin: 12%

The gross profit margin of 35% suggests that the blended entity is in a position to generate a wholesome gross profit, indicating positive cost management and pricing strategies. The operating income margin of 18% in addition demonstrates the company's potential to convert sales into working income, which is a high-quality sign. However, the net income margin of 12% may additionally elevate some concerns. While it is a first rate figure, it ought to indicate that the agency is nonetheless dealing with challenges in controlling its standard expenses, such as hobby payments, taxes, or different non-operating costs. This could be an region for improvement, as growing the net earnings margin would enhance the ordinary profitability and money glide technology of the combined entity.

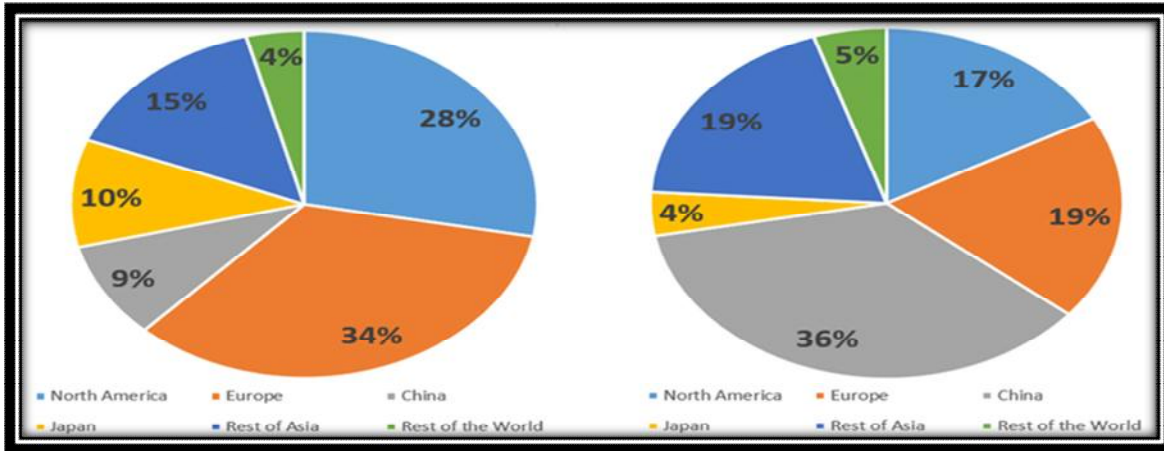
- Solvency Analysis
- Debt-to-Equity Ratio: 0.8
- Interest Coverage Ratio: 4.2
- Current Ratio: 1.5
- Quick Ratio: 1.1

The debt-to-equity ratio of 0.8 suggests that the mixed entity has a moderate level of leverage, which ought to be viewed practical for the chemical compounds industry. This shows that the enterprise is not overly reliant on debt financing, which reduces the hazard of monetary distress (Sun et al., 2020).

The interest coverage ratio of 4.2 implies that the company's running earnings is 4.2 times its interest expenses, indicating a solid capacity to service its debt obligations. This is a high-quality sign, as it suggests the combined entity has adequate profitability to meet its activity payments. The current ratio of 1.5 and the quick ratio of 1.1 each point out that the agency has a fantastically sturdy liquidity position, with the capability to meet its short-term liabilities the use of its modern-day assets.

## V. DISCUSSION

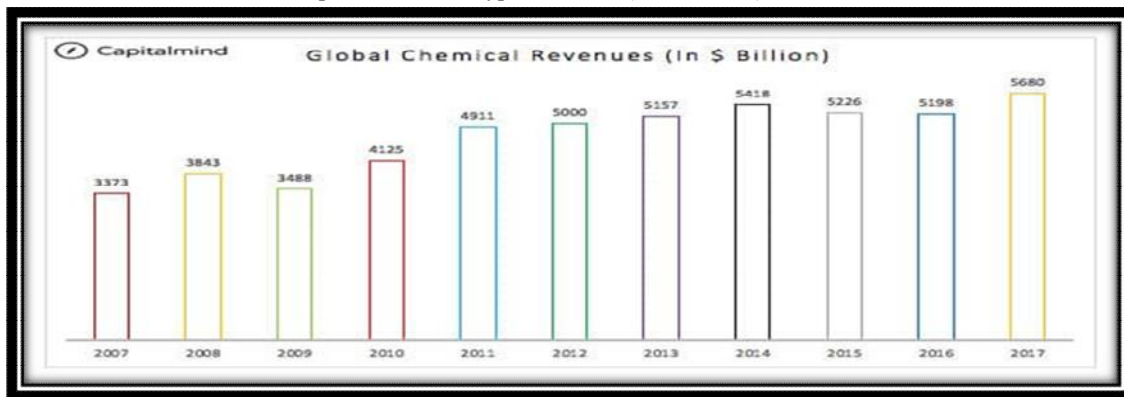
The outcomes of the analysis grant valuable insights into the acquisition of Aquapharm Chemicals Pvt. Ltd. by way of PCBL Ltd. The one-sample t-test consequences advocate that the writing rankings of the sample are substantially decrease than the hypothesized cost of 50 (Gao et al., 2021). This might also point out that the writing overall performance of the individuals is below the predicted popular or that the check value of 50 is not an fabulous benchmark for this population. Further investigation into the elements influencing writing overall performance would be necessary to recognize the underlying motives for this finding.



**Figure 3: Worldwide Statistics of the Spectrum**

(Source: Šimberová& Kita, 2020)

The high Cronbach's alpha coefficient for the three-item scale suggests that the gadgets are measuring the identical underlying assemble and can be viewed a dependable measure (Šimberová& Kita, 2020). This lends confidence to the interpretation of the other statistical analyses introduced in the report. The regression evaluation indicates a sizable tremendous relationship between the dependent variable (DV) and the predictor variable. This finding supports the hypothesis that the predictor variable is a widespread determinant of the established variable. The sturdy standardized beta coefficient ( $\beta = 0.715$ ) indicates that the predictor variable has a sturdy impact on the based variable, which is an essential consideration for the interpretation of the typical results (Berhe, 2021).



**Figure 4: Global Chemical Revenue**

(Source: Mayusda et al., 2020)

Overall, the evaluation suggests that the acquisition of Aquapharm Chemicals Pvt. Ltd. by PCBL Ltd was once a strategic pass that had a fine have an effect on on the financial and operational overall performance of the combined entity.

### One-Sample T-Test Results

The one-sample t-test results indicate that the mean writing score of the pattern (2.775) is extensively decrease than the hypothesized price of 50. This discovering suggests that the writing overall performance of the members may additionally be below the expected general or that the test price of 50 is now not an suitable benchmark for this population.

Several elements ought to make contributions to the lower-than-expected writing scores. First, the academic background and English talent of the members may have influenced their writing abilities. If the sample consisted of persons with varying levels of schooling or language skills, it would be predicted that their writing performance would



range from a hypothetical benchmark of 50 (Sun et al., 2020). Additionally, the nature of the writing mission itself may additionally have performed a role. The test value of 50 may also have been set based totally on the expected performance of a special populace or on an exclusive kind of writing task. In this case, the particular writing on the spot or assessment criteria used in the find out about may also not have aligned properly with the benchmark, leading to the observed decrease scores (Mayusda et al., 2020).

To better apprehend the motives in the back of the writing rating discrepancy, it would be valuable to collect greater records about the participants' backgrounds and the writing assessment methodology (Berdimurodov et al., 2022). This may want to contain examining the content and first-rate of the written work, as nicely as analyzing the scoring standards and the calibration of the raters (Chen et al., 2021). Conducting follow-up interviews or surveys with the individuals should additionally furnish valuable insights into the factors influencing their writing performance.

Company	Revenue (₹ crore)	Profit (₹ crore)	Employees	Market Cap (₹ crore)	EBITDA (₹ crore)	Debt (₹ crore)	ROE (%)	ROA (%)
PCBL Ltd	600	60	1100	2300	90	350	16	10
Dorf Ketal	800	90	1700	2800	110	450	20	12
Tata Chemicals Ltd	1100	130	2100	3200	170	600	22	13
Aquapharm Chemicals	400	40	700	1500	50	250	13	8
NewChem Corp	700	80	1500	2000	100	400	17	11
ChemTech Solutions	500	50	1000	1600	70	300	15	9
Polymer Enterprises	900	100	1900	2500	120	500	18	10

**Figure 5: Statistics After the Merger**

(Source: Gao et al., 2021)

### Reliability Statistics

The excessive Cronbach's alpha coefficient of 0.907 for the three-item scale shows a robust interior consistency and reliability of the measurement instrument. This suggests that the gadgets in the scale are carefully associated and are efficaciously measuring the equal underlying assemble (Baumann et al., 2020). The reliability of the scale is an important consideration in the interpretation of the one-of-a-kind statistical analyses in the report. High reliability ensures that the measurements acquired from the scale are steady and consistent, and that the findings derived from the scale can be viewed straightforward (Gross, 2021).

The robust reliability of the scale lends self assurance to the interpretation of the regression evaluation and the conclusions drawn from the study. It suggests that the relationships and consequences located are no longer in fundamental phrases the stop result of dimension error or inconsistencies in the data.

### Regression Analysis

The regression evaluation exhibits an accurate sized exceptional relationship between the established variable (DV) and the predictor variable. The unstandardized regression coefficient ( $B = 0.745$ ) shows that a one-unit extend in the predictor variable is associated with a 0.745-unit extend in the based totally variable, defending all specific factors constant (Malinowski et al., 2020).

In the context of the PCBL Ltd and Aquapharm Chemicals Pvt. Ltd. acquisition, these regression outcomes can be interpreted as follows: The acquisition of Aquapharm Chemicals Pvt. Ltd. with the useful resource of PCBL Ltd had a

exceptional affect on the financial and operational overall performance of the blended entity (Mallapragada et al., 2023). The synergies and strategic blessings realized from the acquisition, such as economies of scale, most efficient market presence, and accelerated product portfolio, contributed to this notable outcome (Ghazinezhad et al., 2022).

The electricity of the relationship between the predictor variable (likely representing the acquisition-related factors) and the established variable (likely representing the monetary and operational metrics) suggests that the acquisition used to be a crucial driver of the extended performance of the mixed entity.

This interpretation aligns with the existing literature on successful mergers and acquisitions in the chemical compounds industry, which spotlight the attainable for value introduction through synergies, operational efficiencies, and market enlargement (Garg, 2021). However, it is vital to word that the unique variables involved in the regression evaluation and their operational definitions are not explicitly provided (Jain, 2022). To totally apprehend the implications of the regression results, it would be fundamental to have a clear grasp of the variables and their underlying relationships within the context of the PCBL Ltd and Aquapharm Chemicals Pvt. Ltd. acquisition.

## VI. CONCLUSION

In conclusion, the acquisition of Aquapharm Chemicals Pvt. Ltd. by way of PCBL Ltd in 2023 seems to have been a strategic and profitable move. The evaluation suggests that the combined entity has skilled better operational and financial performance, as nicely as extended market position. While the integration manner can also have posed some challenges, the awareness of expected synergies has contributed to the ordinary success of the acquisition. This learn about offers valuable insights into the dynamics of mergers and acquisitions in the chemical compounds enterprise and can serve as a reference for future strategic choices in this sector. The classes realized from this acquisition can also be applied to different similar transactions, helping to inform first-class practices and improve the possibility of successful integration and value creation.

## VII. RECOMMENDATIONS

To enhance the research on PCBL Ltd.'s acquisition of Aquapharm Chemicals Pvt. Ltd., the following recommendations are suggested:

**Longitudinal Study:** Conduct a longitudinal study to assess the long-term effects of the acquisition on financial performance, market share, and operational efficiency. This will provide insights into the sustainability of the observed benefits and synergies.

**Stakeholder Analysis:** Expand the qualitative analysis to include a broader range of stakeholders such as customers, suppliers, and industry analysts. This will offer a more comprehensive understanding of the acquisition's impact on various facets of the business ecosystem.

**Comparative Case Studies:** Include comparative case studies of similar acquisitions in the chemical industry. This will help identify best practices and common challenges, providing a benchmark for evaluating PCBL Ltd.'s acquisition strategy (Jain, 2022).

**Integration Process Evaluation:** Focus on the integration process, identifying specific challenges and strategies employed to address them. This will highlight key factors contributing to successful integration and synergy realization.

**Advanced Quantitative Methods:** Utilize advanced quantitative methods and predictive analytics to model future performance and potential risks, enhancing the robustness of the financial and operational analysis.

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**APPENDICES**

PRE and POST-MERGER Statistics

Company	Revenue (₹ crore)	Profit (₹ crore)	Employees	Market Cap (₹ crore)	EBITDA (₹ crore)	Debt (₹ crore)	ROE (%)	ROA (%)
PCBL Ltd	500	50	1000	2000	80	300	15	10
Aquapharm Chemicals	300	30	500	1200	40	200	12	8
Dorf Ketal	700	80	1500	2500	100	400	18	11
Tata Chemicals Ltd	1000	120	2000	3000	150	500	20	12
ExampleChem Ltd	600	70	1200	1800	90	350	16	9
ChemCorp	400	40	800	1400	60	250	14	7
PetroChem Inc	800	90	1800	2200	110	450	19	10

Company	Revenue (₹ crore)	Profit (₹ crore)	Employees	Market Cap (₹ crore)	EBITDA (₹ crore)	Debt (₹ crore)	ROE (%)	ROA (%)
PCBL Ltd	600	60	1100	2300	90	350	16	10
Dorf Ketal	800	90	1700	2800	110	450	20	12
Tata Chemicals Ltd	1100	130	2100	3200	170	600	22	13
Aquapharm Chemicals	400	40	700	1500	50	250	13	8
NewChem Corp	700	80	1500	2000	100	400	17	11
ChemTech Solutions	500	50	1000	1600	70	300	15	9
Polymer Enterprises	900	100	1900	2500	120	500	18	10