

Solvency and Liquidity Analysis of Selected Pharmaceutical Companies in Indian: A Comparative Study

Abhijit Roy ⁽¹⁾

PhD. Scholar, Department of Commerce,
Cooch Behar PanchananBarma University,
West Bengal, India

Aditya Sarkar ⁽²⁾

Independent Researcher
West Bengal, India

Abstract :

This study delves into the solvency and liquidity positions of prominent pharmaceutical companies in India, aiming to provide insights into their financial robustness and ability to meet short-term obligations. Utilizing key financial metrics such as current ratio, quick ratio, and interest coverage ratio, the analysis focuses on Arubinda Pharma, Lupin Ltd., Cipla Ltd., Dr. Reddy's Laboratories, Sun Pharma, and Torrent Pharma. The findings reveal that Arubinda Pharma consistently exhibits strong liquidity positions, supported by high current and quick ratios. Lupin Ltd., Cipla Ltd., and Dr. Reddy's Laboratories showcase moderate to high liquidity levels, accompanied by consistently robust interest coverage ratios, indicative of sound debt servicing capabilities. However, Sun Pharma and Torrent Pharma display moderate interest coverage ratios, with Sun Pharma experiencing some fluctuation over time. Overall, the selected pharmaceutical companies demonstrate solid liquidity and solvency positions, with occasional deviations, emphasizing their overall financial health in the industry.

Keyword: Pharmaceutical Industry, Financial Ratios, India.

Introduction:

The Indian pharmaceuticals industry is a significant player on the global stage, standing as the third-largest producer by volume and the fourteenth by value. With a commanding 20% share in global generic medicine supply and a reputation as the primary global vaccine manufacturer, India boasts an impressive pharmaceutical landscape. It houses the highest number of US-FDA compliant Pharma plants outside the USA, along with a robust network of over 10,500 manufacturing facilities and a talent pool of skilled professionals across more than 3,000 pharmaceutical companies.

In this study, data was meticulously gathered from the financial statements, including the Profit & Loss account and balance sheet, of selected pharmaceutical companies. The research journey began with a thorough review of existing literature, which uncovered a critical gap in understanding the solvency and liquidity positions of these companies. Through this research endeavor, we aim to shed light on this crucial aspect by providing a comprehensive view of the financial health of the selected pharmaceutical firms. By analyzing five years of financial data, our study seeks to bridge the gap in knowledge and offer valuable insights into the

solvency and liquidity positions of these companies, thereby contributing to a deeper understanding of the Indian pharmaceutical industry's financial dynamics

Literature Review:

Maretha, D., Astuti, V. T., Hudzafidah, K., Hendra, J., & Hertina, D. (2023): The study investigated the impact of liquidity and solvency on profitability at PT. Kalbe Pharmacy using quantitative analysis, revealing significant influence of liquidity (CR) and solvency (DER) on profitability (GPM).

Morosan-Danila, L., Grigoras-Ichim, C. E., & Harasemciuc, E. (2023): The paper conducts a comprehensive financial performance analysis of three prominent pharmaceutical companies in Romania over three key periods: pre-pandemic, pandemic, and post-pandemic, showcasing their resilience and potential growth amidst global crises. It highlights the significance of such analysis for investment decisions, risk assessment, and strategic planning, emphasizing the pharmaceutical sector's unique position for sustained expansion in a post-pandemic landscape.

Akter, S. (2021): The financial fitness assessment of leading pharmaceutical companies in Bangladesh using Altman's Z-score model reveals varying levels of stability. SQUARE Pharmaceuticals, Renata Limited, and IBN SINA Pharmaceutical are in strong positions, while ACI Limited and Beximco Pharmaceuticals face potential bankruptcy due to declining market value, low asset turnover, and inadequate profitability ratios.

Batrancea, L. (2021): This study examines the impact of financial liquidity and solvency on the performance of 34 publicly traded healthcare companies on the NYSE from 2005 to 2020, revealing significant correlations between liquidity ratios and profitability metrics. Insights from the analysis inform strategies for enhancing business performance within the healthcare sector.

Ali, A. (2020): The study examines the relationship between firm size and solvency in Indian pharmaceutical companies from 2013 to 2018, utilizing ratio analysis and Spearman's rank correlation, revealing a positive and moderate correlation between size determinants and solvency.

Mohanty, M. (2020): This paper compares the financial performance of selected pharmaceutical companies from 2015 to 2019, revealing high liquidity and solvency but inconsistent profitability and efficiency. It addresses gaps in existing literature and provides valuable insights for regulators, financial analysts, and managers in the Indian pharmaceutical sector.

Omari, R. A. (2020): This study examines the impact of liquidity and solvency on profitability in Jordan's pharmaceutical sector from 2005 to 2018, finding a negative correlation between liquidity (CR) and profitability (ROA), and a positive correlation between solvency (DE) and profitability. It suggests pharmaceutical companies prioritize liquidity policies for balanced performance.

Objectives of the study:

Our objective is to assess the solvency and liquidity positions of selected pharmaceutical companies operating in India.

Research Methodology:

Period of Study:

For conducting this we were collected five-year data from financial year 2016-17 to 2020-21 the annual report of the companies.

Sample size:

The study was conducted with the financial data of 6 pharmaceutical companies.

Sources of Data:

This study is based on Secondary source of data. Pharmaceuticals companies data was collected there are Sun Pharmaceuticals, Cipla Ltd., Cadila Healthcare, Torrent Pharmaceuticals, Mankind Pharmaceutical Ltd., Lupin Ltd.

Tools Applied:

Financial tools were applied for this study.

Ratio analysis:**1. Liquidity Ratios**

Current Ratio = Current Assets / Current Liabilities

Quick Ratio = (Current Assets - Inventories) / Current Liabilities

Cash Ratio = Cash & Cash Equivalents / Current Liabilities

2. Solvency Ratios

Debt-To-Equity Ratio = Total Debt / Total Equity

Debt Ratio = Total Debt / Total Assets

Interest Coverage Ratio = EBITDA / Interest Expenses

Data Analysis and Interpretation:**LIQUIDITY RATIO:**

Current Ratio: The current ratio is a measure of a company's ability to cover its short-term liabilities with its short-term assets. A higher current ratio indicates better liquidity, meaning the company is more capable of paying off its debts and other obligations.

FORMULA: $\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$

TABLE 1:

current ratio	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
Sun pharmaceuticals ltd.	1.446187774	1.065815522	0.841614909	0.762453398	0.582723155
ARUBINDA PHARMA	1.831971204	1.831848088	1.831725007	1.560813183	1.552371615
LUPIN LTD	3.71925842	4.240767043	4.74845173	3.731449656	3.60568052
CIPLA LTD	3.786183942	3.44637669	4.002673052	2.905945016	2.482692511
DR REDDY	2.399885972	2.417581629	2.90104894	1.914977012	2.018271489
TORRENT PHARMA	1.601778947	1.127463483	1.214108983	1.218071664	3.070991156

Let's interpret the current ratios of the mentioned pharmaceutical companies:

Sun Pharmaceuticals Ltd.:

The current ratio has been gradually increasing over the years, from 0.58 in 2016-2017 to 1.45 in 2020-2021. This suggests that Sun Pharmaceuticals' liquidity position has improved over time, indicating better financial health.

Arubinda Pharma:

Arubinda Pharma has maintained a consistently high current ratio, ranging from 1.55 to 1.83 over the years. This indicates that the company has a strong ability to cover its short-term liabilities with its short-term assets, reflecting good liquidity.

Lupin Ltd.:

Lupin Ltd. also shows a consistently high current ratio, ranging from 3.61 to 4.75 over the years. This indicates a strong liquidity position, suggesting that the company is well-equipped to meet its short-term financial obligations.

Cipla Ltd.:

Cipla Ltd. has shown some fluctuations in its current ratio, but overall it has remained relatively high, ranging from 2.48 to 3.79 over the years. This suggests that the company maintains a good level of liquidity and can cover its short-term liabilities effectively.

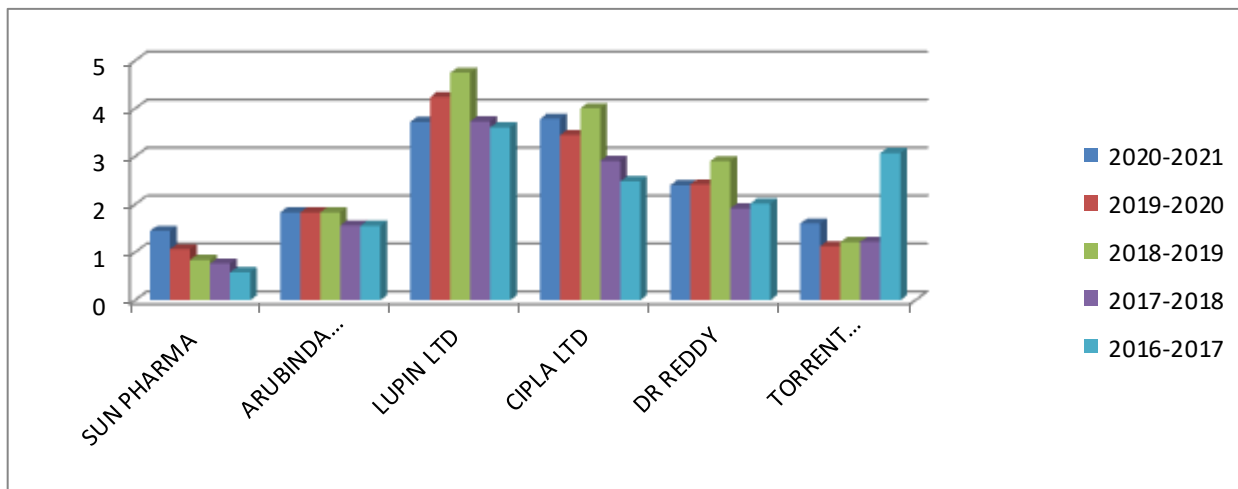
Dr. Reddy's Laboratories:

Dr. Reddy's Laboratories has also maintained a relatively stable current ratio over the years, ranging from 1.91 to 2.90. This indicates a reasonable liquidity position, allowing the company to meet its short-term obligations adequately.

Torrent Pharma:

Torrent Pharma's current ratio has shown some variation over the years, ranging from 1.13 to 3.07. While the ratio is lower compared to some other companies, it still indicates a reasonable level of liquidity, suggesting the company's ability to cover its short-term liabilities.

Graph 1:



Quick Ratio: The quick ratio, also known as the acid-test ratio, measures a company's ability to pay off its short-term liabilities with its most liquid assets, excluding inventory. A higher quick ratio indicates better liquidity and a stronger ability to cover short-term obligations.

Table 2:

Quick Ratio	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
SUN PHARMA	1.066766544	0.830744912	0.631197808	0.592396974	0.372164577
ARUBINDA PHARMA	1.11542822	1.115263156	1.115098142	0.968334324	1.005118092
LUPIN LTD	2.671938991	3.268617531	3.593955111	2.798305803	2.777160208
CIPLA LTD	2.639869388	2.29287326	2.791392183	1.793824358	1.444477919
DR REDDY	1.781571388	1.893625164	2.246484591	1.521578847	1.593259746
TORRENT PHARMA	0.862456493	0.682365652	0.774219352	0.783133337	2.17685425

Sun Pharma:

Sun Pharma's quick ratio has shown some fluctuations over the years, but generally, it has remained above 1. This suggests that the company has had sufficient liquid assets to cover its short-term liabilities, although it has experienced some variability in its liquidity position.

Arubinda Pharma:

Arubinda Pharma has maintained a consistently healthy quick ratio, staying above 1 throughout the years. This indicates a strong ability to cover short-term obligations with its readily available liquid assets.

Lupin Ltd.:

Lupin Ltd. has shown a generally strong quick ratio over the years, ranging from around 2.78 to 3.59. This suggests that the company has maintained a robust liquidity position, with ample liquid assets to meet short-term obligations.

Cipla Ltd.:

Cipla Ltd. has demonstrated a reasonably stable quick ratio, hovering around 1.44 to 2.79 over the years. This indicates a moderate level of liquidity, with the company having enough liquid assets to cover its short-term liabilities.

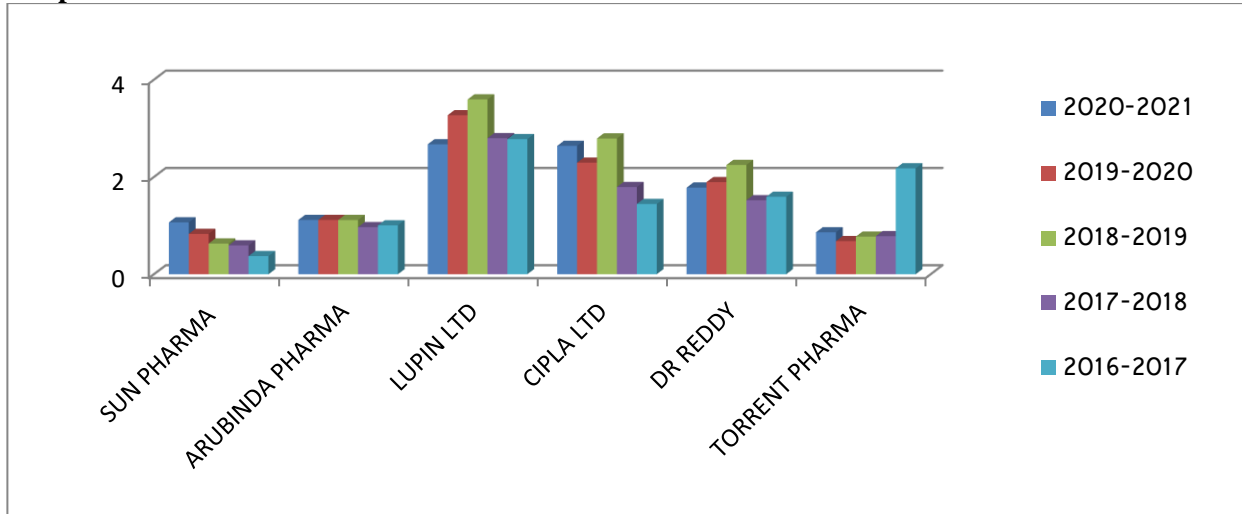
Dr. Reddy's Laboratories:

Dr. Reddy's has shown a consistent quick ratio above 1, indicating a healthy ability to meet short-term obligations with its liquid assets. The ratio has ranged from around 1.52 to 2.25 over the years.

Torrent Pharma:

Torrent Pharma's quick ratio has shown some variability, dipping below 1 in some years. This suggests a relatively weaker liquidity position compared to some other companies in the industry, although it has improved over time.

Graph-2



Solvency ratio:

The solvency ratio indicates a company's ability to meet its long-term financial obligations. A highest solvency ratio indicates the company holds a strong financial position.

Debt to Equity Ratio:

Debt equity ratio indicates that the company the proportion of a company's financing that comes from debt compared to equity. A lower DE ratio indicate that the company is less relies on its debt, and vise visa.

TABLE 3:

D/E RATIO	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
SUN PHARMA	0.55745131	0.574437761	0.650970665	0.648185853	0.61186524
ARUBINDA PHARMA	0.456173181	0.456270121	0.456367049	0.582140088	0.543698688
LUPIN LTD	0.177371278	0.183556228	0.150312521	0.183468314	0.207574437
CIPLA LTD	0.152360851	0.172539614	0.167083705	0.211247796	0.219265482
DR REDDY	0.273550522	0.281985795	0.280934398	0.448220668	0.417788735
TORRENT PHARMA	0.950388882	1.320745874	1.398130111	1.594117402	0.807686176

Sun Pharma:

Sun Pharma's D/E ratio has been relatively stable over the years, ranging from around 0.55 to 0.65. This suggests that the company has a moderate level of debt compared to its equity, indicating a balanced approach to financing its operations.

Arubinda Pharma:

Arubinda Pharma's D/E ratio has remained relatively low, hovering around 0.45 to 0.58 over the years. This indicates a conservative approach to debt financing, with a greater reliance on equity to fund its operations.

Lupin Ltd.:

Lupin Ltd. has consistently maintained a low D/E ratio, ranging from approximately 0.15 to 0.21. This suggests a prudent financial strategy with minimal reliance on debt, indicating a strong equity base to support its operations.

Cipla Ltd.:

Cipla Ltd.'s D/E ratio has also been relatively low, ranging from around 0.15 to 0.22 over the years. This indicates a conservative approach to financing, with a higher proportion of equity compared to debt.

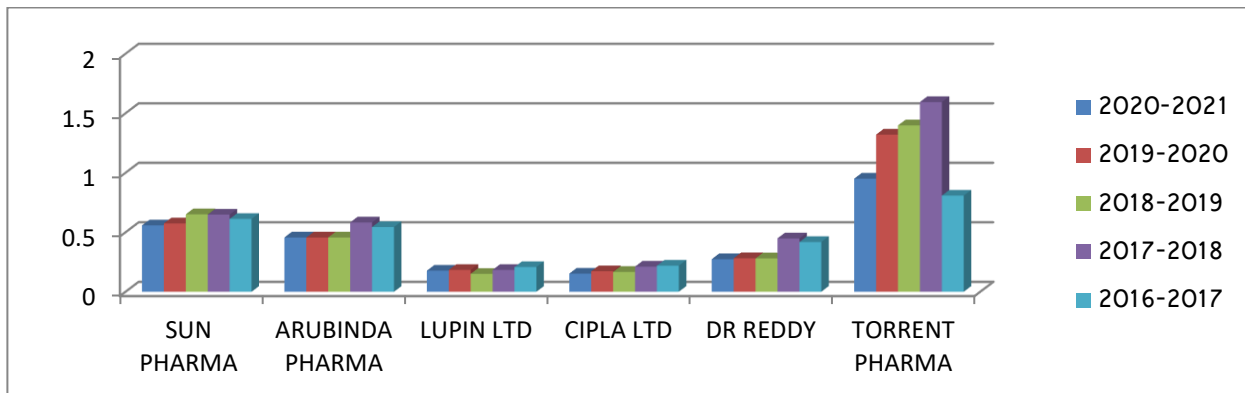
Dr. Reddy's Laboratories:

Dr. Reddy's has shown some variability in its D/E ratio, ranging from around 0.27 to 0.45. While the ratio has fluctuated, it generally indicates a moderate level of debt relative to equity.

Torrent Pharma:

Torrent Pharma has displayed some fluctuations in its D/E ratio, with values ranging from around 0.81 to 1.59. This suggests a relatively higher reliance on debt financing compared to some other pharmaceutical companies analyzed.

Graph 3:



Debt Ratio: Debt ratio which is known as debts assets ratio, that measure that the proportion of a company's assets that are financed by debt.

FORMULA: $\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$

Table 4

DEBT RATIO	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
SUN PHARMA	0.357925353	0.364852632	0.394295719	0.393272307	0.379600741
ARUBINDA PHARMA	0.313268495	0.31334123	0.313413959	0.367944718	0.352205189
LUPIN LTD	0.150649906	0.155088126	0.130671029	0.155025962	0.171893699
CIPLA LTD	0.132216268	0.147150349	0.143163429	0.174405103	0.179834077
DR REDDY	0.214793616	0.219960156	0.219319895	0.309497494	0.294676297
TORRENT PHARMA	0.487281737	0.569104049	0.583008447	0.614512435	0.446806634

Sun Pharma:

Sun Pharma's debt ratio has been relatively stable over the years, ranging from around 0.36 to 0.40. This suggests that approximately 36% to 40% of the company's assets are financed by debt, with the remaining portion funded by equity.

Arubinda Pharma:

Arubinda Pharma has also maintained a stable debt ratio, ranging from approximately 0.31 to 0.37. This indicates that around 31% to 37% of the company's assets are financed by debt.

Lupin Ltd.:

Lupin Ltd. has consistently demonstrated a low debt ratio, ranging from around 0.13 to 0.17. This suggests that only around 13% to 17% of the company's assets are financed by debt, indicating a conservative financial approach.

Cipla Ltd.:

Cipla Ltd. has shown a relatively low and stable debt ratio, ranging from approximately 0.13 to 0.18. This indicates that around 13% to 18% of the company's assets are financed by debt.

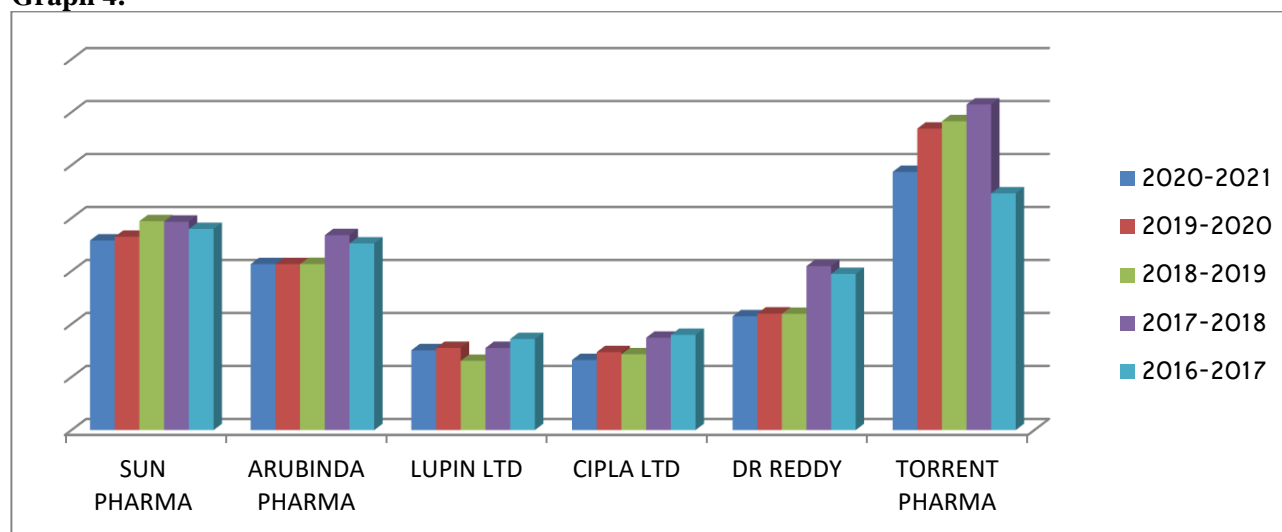
Dr. Reddy's Laboratories:

Dr. Reddy's has displayed some variability in its debt ratio, ranging from around 0.21 to 0.31. This suggests that around 21% to 31% of the company's assets are financed by debt.

Torrent Pharma:

Torrent Pharma has shown some fluctuations in its debt ratio, ranging from around 0.45 to 0.61. This indicates that around 45% to 61% of the company's assets are financed by debt, suggesting a higher reliance on borrowing compared to some other companies.

Graph 4:



Interest Coverage Ratio:

The interest coverage ratio measures a company's ability to cover its interest expenses with its operating income

TABLE 5:

INTEREST RATIO	COVERAGE				
	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
SUN PHARMA	5.050636206	2.496226831	2.997217737	2.408683861	2.704129708
ARUBINDA PHARMA	146.1997908	9.868431975	8.510006064	44.29835508	48.2411426
LUPIN LTD	40.12063023	34.44495151	75.62306174	53.96901324	142.0482665
CIPLA LTD	74.34346572	82.22773925	146.8962876	167.1361345	30.27908163
DR REDDY	65.44325482	58.07112971	29.94190141	11.09872611	27.00174825
TORRENT PHARMA	4.024362222	2.594183372	1.944237686	1.914090166	4.718895148

Sun Pharma:

Sun Pharma's interest coverage ratio has fluctuated over the years but generally remained above 2. This indicates that the company's operating income is sufficient to cover its interest expenses, although there has been some variability in its ability to do so.

Arubinda Pharma:

Arubinda Pharma has demonstrated exceptionally high interest coverage ratios, especially in 2020-2021. Ratios above 100 suggest that the company's operating income is significantly more than enough to cover its interest expenses, indicating a very strong financial position in terms of debt servicing capacity.

Lupin Ltd.:

Lupin Ltd. has shown relatively high interest coverage ratios, indicating that the company's operating income comfortably covers its interest expenses. The ratios have ranged from around 34 to 142 over the years, reflecting a solid ability to meet its debt obligations.

Cipla Ltd.:

Cipla Ltd. has maintained consistently high interest coverage ratios, indicating a strong ability to cover its interest expenses with operating income. The ratios have ranged from around 30 to 167 over the years, suggesting robust financial health in terms of debt servicing.

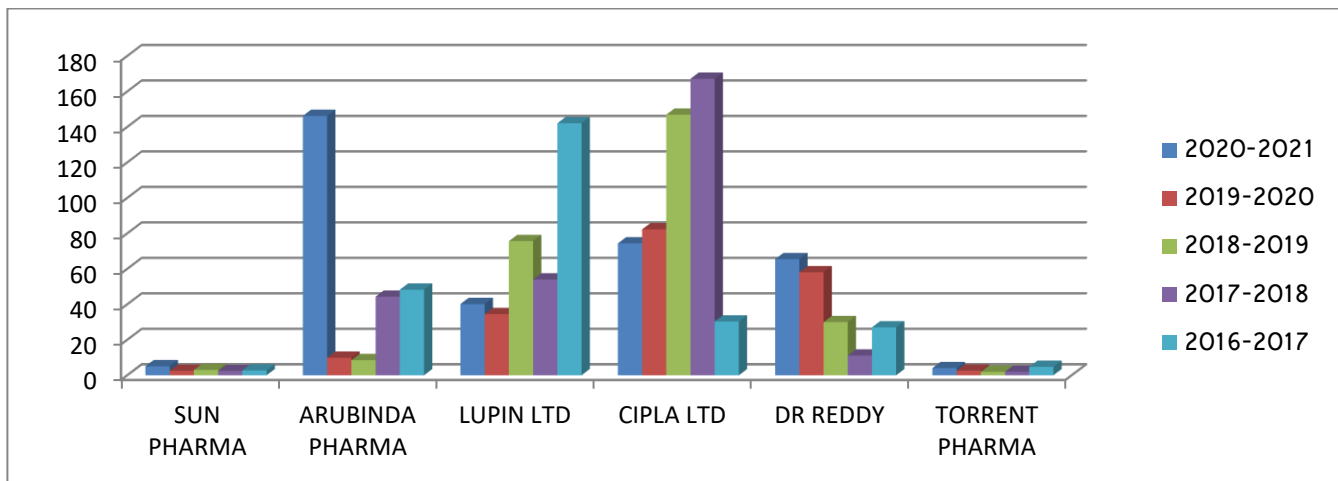
Dr. Reddy's Laboratories:

Dr. Reddy's has also demonstrated strong interest coverage ratios, although with some variability. The ratios have generally remained above 10, indicating that the company's operating income is sufficient to cover its interest expenses.

Torrent Pharma:

Torrent Pharma's interest coverage ratios have varied, but generally remained above 1, indicating that the company's operating income is able to cover its interest expenses. However, the ratios are relatively lower compared to some other companies in the industry.

Graph: 5



Conclusion:

From the above data analysis we conclude that our Arubinda Pharma has demonstrates strong liquidity positions with consistently high current and quick ratios. Lupin Ltd., Cipla Ltd., and Dr. Reddy's Laboratories show moderate to high liquidity positions. Lupin Ltd., Cipla Ltd., and Dr. Reddy's Laboratories also demonstrate consistently strong interest coverage ratios, suggesting solid financial health in terms of debt servicing. In Sun Pharma and Torrent Pharma show moderate interest coverage ratios, with Sun Pharma experiencing some variability over the years. So all the selected companies have solid liquidity and solvency position with occasionally exceptions.

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