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	<p align="center">Title of research article</p>
	<p align="center">Liquidity Position of Selected Pharmaceutical Companies in India -A Case Study</p>
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<p>Keywords</p>	<p>Liquidity, selected pharmaceutical companies, case study.</p>
<p>Abstract</p> <p>This study compares the short-term liquidity of three leading Indian pharmaceutical firms Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Laboratories over five financial years (2019–20 to 2023–24). Using secondary data from company annual reports, we compute current, quick, and cash ratios, examine trends, and apply one-way ANOVA to test inter-firm differences. Results show Divi's Laboratories holds the strongest average liquidity (current ratio 6.81; quick ratio 4.78), Cipla ranks second with stable performance (current 4.32; quick 3.10 and the lowest variability), while Sun Pharma trails on levels (current 1.76; quick 1.37) but records the fastest improvement over time. ANOVA indicates significant differences across firms for current and quick ratios ($p < 0.05$), but not for cash ratio ($F = 3.09$, $p = 0.08$). Cash positions are highest yet volatile at Divi's (mean 0.66), modest and slightly declining at Cipla (0.07), and low but improving at Sun Pharma (0.04). The findings suggest targeted actions: Sun Pharma should accelerate receivables recovery and inventory turnover to lift baseline liquidity; Cipla should rebuild cash buffers without sacrificing operating stability; Divi's should smooth cash-flow swings and deploy surplus liquidity efficiently. Overall liquidity strength ranks Divi's > Cipla > Sun Pharma, with Sun on an improving trajectory.</p>	
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Introduction:

India's pharmaceutical industry has established itself as a significant player on the global stage in recent years. The company is renowned for its ability to provide affordable, high-quality generic drugs, vaccines, and active pharmaceutical ingredients (APIs). When it comes to providing solutions for healthcare on a global scale, Indian pharmaceutical companies play a significant role due to their robust production infrastructure and the growing domestic and international markets they serve. It is a significant provider of generic pharmaceuticals, accounting for more than twenty percent of the global market in terms of volume, and it satisfies approximately sixty-two percent of the demand for vaccinations across the globe. The aforementioned are some of the most important aspects of this sector. In addition to being a significant producer of active pharmaceutical ingredients (APIs), the nation is home to more than 3,000 companies and 10,500 facilities, making it the nation that has the largest number of US FDA-approved manufacturing plants that are located outside of the United States. The domestic pharmaceutical industry is presently valued at \$50 billion, and it is expected that it will increase to \$130 billion by the year 2030. Some of the causes that are driving the expansion of the industry include increasing incomes, urbanization, and greater access to healthcare. For the purpose of developing products that go beyond generics, Indian companies are increasing their investments in research and development. The majority of their efforts are focused on biosimilars and complex formulations, particularly in therapeutic areas such as oncology and diabetic drug development. During the fiscal year 2023, the pharmaceutical business in India exported a total of \$25.39 billion worth of products, the majority of which were shipped to the United States of America, as well as more than 200 other countries. This was a significant factor in India's rise to prominence as the "pharmacy of the world." Several measures, such as the output-linked incentive plan, have been implemented by the government in order to boost the amount of API that is produced locally and to attract investment from elsewhere.

Sun Pharmaceutical Ltd.-The company that is now known as Sun Pharma was initially formed in 1983 by Dilip Shanghvi under the name Sun Pharmaceutical Industries Limited. Sun Pharma is the current name of the company. It is possible to locate the headquarters of the corporation in Mumbai, Maharashtra, which is the most important financial center in India. Formulations and active pharmaceutical ingredients (APIs) are widely acknowledged to be among the most specific areas of expertise that Sun Pharma possesses. The focus of this method is on a wide variety of therapies, both acute and chronic. Its therapeutic segments include psychiatry, anti-infectives, neurology, cardiology, orthopedics, diabetology, gastroenterology, ophthalmology, nephrology, urology, dermatology, gynecology, respiratory, cancer, dental, and nutritional medicines. These therapeutic segments are comprised of approximately three thousand molecules of high quality.

Divis Labs:-Beginning in 1990, Divi's Laboratories was established with the express intention of doing research and development in the field of life sciences. The primary focus of the company is on the creation of cutting-edge and creative manufacturing processes for pharmaceutical intermediaries and other active pharmaceutical ingredients (APIs).

Cipla Ltd:-Dr. K. A. Hamied established Cipla Limited in 1935, and it has since grown to become one of the most successful global corporations in India in the fields of biotechnology and pharmaceuticals. The production of active pharmaceutical ingredients (APIs) and formulations takes place at 34 cutting-edge Cipla sites located all over the country. Cipla is primarily responsible for the development of pharmaceuticals that are intended to treat conditions such as depression, obesity, cardiovascular illnesses, arthritis, and diabetes.

Review of Literature:

614 – www.imcra.az.org, | Issue 11, Vol. 8, 2025

Liquidity Position of Selected Pharmaceutical Companies in India -A Case Study
Manish Seth, Rashmi Tiwari, Praveen Kumar

Liquidity management is an essential component of financial stability, especially in sectors characterized by elevated operational expenses and variable cash flows, such as the pharmaceutical business. Liquidity is typically evaluated using ratios including the current ratio, quick ratio, and cash ratio (Pandey, 2015). Indian pharmaceutical companies experience several challenges in liquidity management, such as price control restrictions, competition from generic drugs, extended gestation times for new pharmaceuticals, and dependence on foreign money for raw materials. (Sood, 2016). After researching a selection of pharmaceutical firms in India, Nair and Iyer concluded that although the majority of these companies keep a solid current ratio, their quick ratio is frequently lower, indicating that they rely on their inventories for short-term liquidity. Particularly in the event of unanticipated changes in the market or in regulatory policies, which could result in disruptions to cash flow, this can be a risky endeavor (Nair and Iyer 2017). These ratios offer insights into a company's capacity to fulfill its short-term obligations using its short-term assets. Liquidity management is becoming more important for pharmaceutical companies due to their dependence on ongoing research and development (R&D), regulatory approvals, and raw material expenses, which can entail lengthy manufacturing cycles and payments that are delayed (Patnaik, 2018). For pharmaceutical firms, research and development is not only a big investment, but it also plays an essential part in ensuring the company's continued profitability over the long term. Since the expense of research and development is frequently incurred before the product generates any revenue, the researcher states that this spending has a direct impact on the liquidity of pharmaceutical organizations. At the same time that they continue spending money on research and development for future expansion, Indian pharmaceutical companies, especially smaller ones, have the difficulty of maintaining acceptable liquidity levels (Singh and Yadav 2019). Furthermore, variations in demand, particularly in export markets, might impact cash flows. Consequently, firms with inadequate liquidity may find it challenging to meet operational expenses, finance new initiatives, or adapt to abrupt market fluctuations (Bansal, 2020). Research has analyzed the liquidity status of several pharmaceutical firms. Ravindra et al. (2020) look at how well some drug companies make money and how easy it is for them to get cash. The liquidity position of the industry is affected by various elements, such as international rules, export needs, and the cost structure associated with research and development and compliance. Pharmaceutical firms in India, particularly within the generic sector, frequently maintain a conservative liquidity policy given intense competition and government regulation (Sharma, 2020). The current and quick ratios are frequently used to assess liquidity in pharmaceutical companies. However, these statistics alone may not offer a comprehensive understanding of a company's liquidity, particularly when firms maintain significant assets in inventories or receivables. (Ghosh & Das, 2020). The main goal of this study was to find out how well the biggest drug companies are doing and compare them to each other. Then, based on their profitability or liquidity performance, they were ranked. A case study investigated the liquidity of companies that include Sun Pharmaceutical and Cipla, revealing that although they sustained sufficient liquidity levels, their elevated receivables and inventory management could render them vulnerable to liquidity risks in unfavorable market conditions. Conversely, organizations such as Dr. Reddy's Laboratories demonstrated superior working capital management, enhancing their robust liquidity position (Kumar and Kaur 2021). Patel and Singh (2021) revealed that pharmaceutical companies possessing strong intellectual property rights portfolios—comprising patents, trademarks, and copyrights—experience competitive advantages, including market exclusivity and enhanced profitability, which ultimately foster enduring financial success and value generation. Patel and Rao (2021) discovered that companies that strictly comply with regulatory requirements—encompassing manufacturing practices, marketing laws, and medication safety—enhance operational efficiency, mitigate risks, and improve financial performance, thereby strengthening their competitiveness and reputation in the industry. Dheepalakshmy and Angelamary (2024) performed a comparative analysis of Sun Pharmaceutical Industries Limited and Dr. Reddy's Laboratories Limited over five years, highlighting how the systematic application of financial ratios uncovers both strengths and weaknesses, thereby facilitating strategic planning for investors and stakeholders confronting industry challenges like regulatory changes and global competition. India's pharmaceutical sector ranks among the largest globally, recognized for its generic medications that substantially impact the international market. The Indian Brand Equity Foundation (IBEF, 2024) states that India holds the third position in pharmaceutical manufacturing by volume. Adopting a sectoral perspective, Gautam and Madhavi (2024) assessed various pharmaceutical companies from 2017 to 2021 through profitability, liquidity, and solvency ratios. They found generally robust liquidity and solvency but identified inconsistencies in profitability among firms. They recommend improving weak financial ratios and minimizing operational costs to ensure long-term sustainability and enhance investor attraction. Collectively, these studies demonstrate the complex characteristics of financial success within the Indian pharmaceutical sector, influenced by innovation, regulatory adherence, and strategic analysis based on educated decision-making.

Objective For the Study: -

- ❖ To evaluate the liquidity position of selected pharmaceutical companies listed on major stock exchanges like the NSE.
- ❖ To compare the liquidity positions of different pharmaceutical companies.
- ❖ To analyze trends in liquidity over a specified period.
- ❖ To provide actionable recommendations based on findings from the analysis.

Scope of the Study: -

The provision of medical products and services is the most fundamental requirement in contemporary society. The liquidity performance of the company is of interest and concern not only to the owners, shareholders, creditors, governments, and other stakeholders of the firm, but also to the general welfare and growth of civilization as a whole. Thus, it is vital to be aware of the company's Liquidity performance since it is of importance and concern to all of these groups. The issue of "Liquidity position of selected pharmaceutical companies in India—A case study" has to be investigated to fulfill the requirements that have been identified. Examples of the sorts of financial ratios that has been utilized in this investigation include the current ratio, Quick ratio and Cash ratio. Through the examination of the trend of financial ratios, the purpose of the research is to assess the financial standing of the organizations chosen throughout the past five fiscal years (FY19-FY23).

Research Methodology: -

Sample size: -The focus of this paper is on three companies chosen from a group of ten major Indian pharmaceutical companies. Sun Pharma Ltd., Divi's Lab., and Cipla Ltd. are some of these. These companies has been selected based on market capitalization .

Period of the study: -This study covers a period of 5 years from the financial year 2019-20 to 2023-24.

Data collection methods: - To research, compile, and tabulate the annual reports of the firm for the past five years, the current investigation heavily relies on secondary sources of information. The data has been collected from a few selected sources, including the annual reports of the company, the internet, and the necessary financial data collected from the official website of the companies, as well as other websites.

Hypotheses**Hypothesis 1**

H₀ - There is no significant difference between current ratio of selected companies.

H₁ - There is significant difference between current ratio of selected companies.

Hypothesis 2

H₀ - There is no significant difference between Quick ratio of selected companies.

H₁ - There is significant difference between Quick ratio of selected companies.

Hypothesis 3

H₀ - There is no significant difference between Cash ratio of selected companies.

H₀ – There is significant difference between Cash ratio of selected companies.

Limitation of the study: -Most of the information in the study comes from secondary sources, such as audited annual reports. If the audited accounts have any mistakes or unclear information, they could give results that are misleading. The conclusions can not be as complete as they could be because the research only looks at data from the last five years (2019–2024).

Data Analysis

Liquidity ratio: A liquidity ratio is an indicator of whether a company's current assets will be sufficient to cover the company's short-term debt commitments when they become due, and it is a major measure of financial health. Liquidity can be measured using numerous ratios :-

Current Ratio: -The current ratio, or working capital ratio, assesses a company's capacity to fulfill its short-term liabilities due within one year. The ratio evaluates the weight of total current assets in relation to total current liabilities. It reflects a company's financial stability and ability to optimize its present assets' liquidity to fulfill obligations and liabilities. The formula for the current ratio can be utilized to assess a company's liquidity.

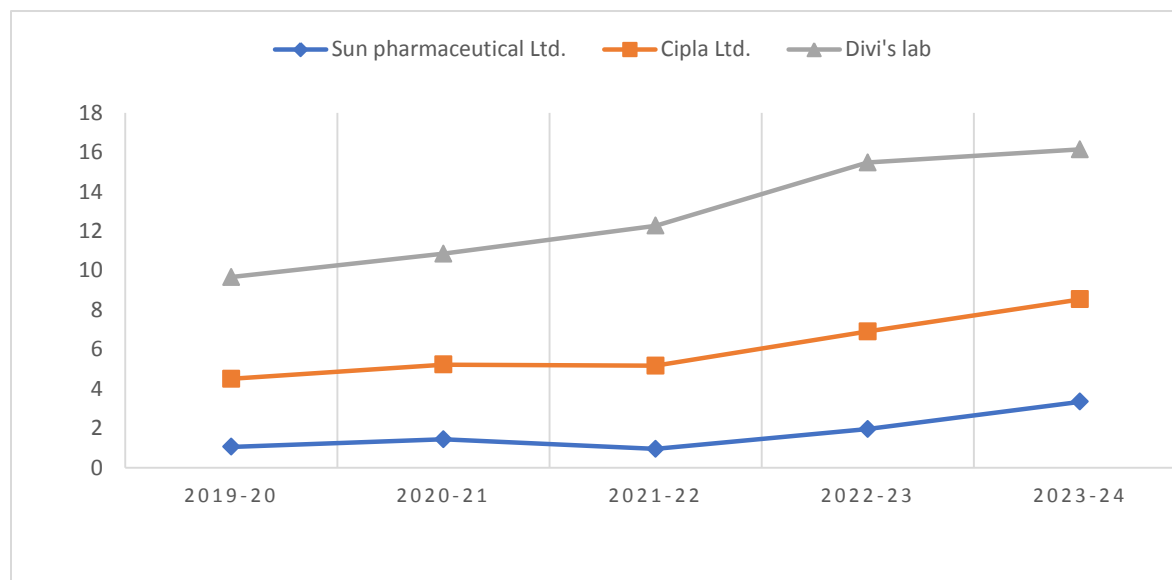
$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

Table 1: Current Ratio of the Selected Pharmaceutical Companies

Year	Sun Pharmaceutical Ltd.	Cipla Ltd.	Divi's lab
2019-20	1.07	3.44	5.16
2020-21	1.44	3.79	5.63
2021-22	0.96	4.22	7.10
2022-23	1.97	4.95	8.57
2023-24	3.35	5.19	7.60
Mean	1.76	4.32	6.81
SD	0.98	0.75	1.41
CV %	55.49	17.25	20.65
CAGR%	0.26	0.09	0.08

Source: - Compiled and computed from various Annual reports of selected Pharmaceutical Companies

Chart 1: Current Ratio of the Selected Pharmaceutical Companies



Interpretation

An evaluation of the current ratio data from 2019–20 to 2023–24 for Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Laboratories reveals significant differences in their short-term liquidity positions. Based on the mean values, Divi's Laboratories holds the strongest average current ratio at 6.81, indicating a robust ability to cover short-term obligations, followed by Cipla Ltd. with 4.32, while Sun Pharmaceutical Ltd. lags behind with a comparatively lower mean of 1.76, reflecting tighter liquidity management. In terms of standard deviation, which reflects the extent of fluctuations, Divi's Lab exhibits the highest variability at 1.41, whereas Sun Pharma and Cipla show lower deviations of 0.98 and 0.75 respectively, suggesting greater consistency in Cipla's liquidity levels. The coefficient of variation (CV), which measures relative consistency, further supports this observation, as Cipla Ltd. maintains the lowest CV of 17.25%, implying the most stable liquidity pattern among the three, while Sun Pharma's CV of 55.49% indicates substantial inconsistency. Although Divi's Lab demonstrates strong liquidity, its CV of 20.65% suggests moderate variability. Regarding growth, the Compound Annual Growth Rate (CAGR) shows that Sun Pharmaceutical Ltd. has achieved the most significant improvement over the five-year period with a CAGR of 0.26, compared to Cipla's 0.09 and Divi's 0.08, reflecting a notable upward trend in its current ratio.

ANOVA TEST OF CURRENT RATIO

H₀ – There is no significant difference between current ratio of selected companies.

H₁ – There is significant difference between current ratio of selected companies.

SUMMARY						
Groups	Count	Sum	Average	Variance		
Sun Pharmaceutical Ltd.	5	8.79	1.75	0.95		

Cipla Ltd.	5	21.59	4.31	0.55		
Divi's lab	5	34.05	6.81	1.97		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	63.82	2	31.91	27.47	3.31695E-05	3.88
Within Groups	13.94	12	1.16			
Total	77.76	14				

Source : Author's calculation through EXCEL

** at 5% significance level

A one-way ANOVA test has been applied to assess whether the average current ratios of Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Laboratories differ significantly over the five-year period from 2019-20 to 2023-24. The ANOVA test for the current ratio shows that the calculated F-value (27.47) is greater than the F critical value (3.88), and the p-value (0.000033) is less than the 0.05 significance level. This means there is a statistically significant difference in the mean current ratios among Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Lab. Therefore, the null hypothesis is rejected, and it is concluded that the current ratios of the selected companies are not the same.

Quick Ratio (Acid-Test Ratio): The quick ratio is a financial metric that assesses a company's capacity to meet its current liabilities without liquidating inventory or securing extra funding. It is a more cautious metric than the current ratio, which encompasses all current assets. The quick ratio is determined by dividing a company's most liquid assets by total current liabilities, omitting some assets such as prepaid expenses and inventories. An elevated ratio signifies improved liquidity and fiscal well-being.

Quick Ratio = Quick Assets / Current Liabilities

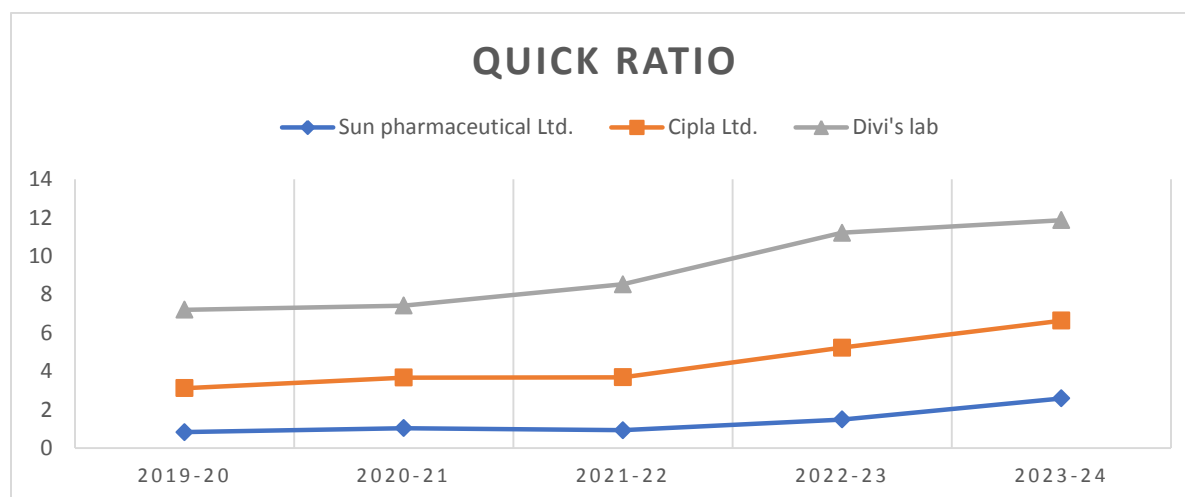
Table 2: Quick Ratio of the Selected Pharmaceutical Companies

Year	Sun Pharmaceutical Ltd.	Cipla Ltd.	Divi's lab
2019-20	0.83	2.29	4.09
2020-21	1.03	2.64	3.75
2021-22	0.93	2.77	4.84
2022-23	1.49	3.74	5.99
2023-24	2.58	4.05	5.23
Mean	1.37	3.10	4.78
SD	0.72	0.76	0.90

CV%	52.62	24.44	18.73
CAGR%	25.48	12.08	5.06

Source: - Compiled and computed from various Annual reports of selected Pharmaceutical Companies

Chart 2: Quick Ratio of the Selected Pharmaceutical Companies



Interpretation:

The analysis of the quick ratio reveals distinct liquidity positions among the selected pharmaceutical companies. On average, Divi's Laboratories (4.78) has maintained the highest quick ratio, indicating a stronger ability to meet short-term obligations without relying on inventory, followed by Cipla Ltd. (3.10) and Sun Pharmaceutical Ltd. (1.37). In terms of stability, the standard deviation values suggest that Sun Pharma (0.72) and Cipla (0.76) experienced moderate year-to-year fluctuations, while Divi's Lab (0.90) has showed relatively higher variability despite having the highest mean. The coefficient of variation further emphasizes this pattern, with Sun Pharma (52.62%) showing the highest relative volatility in liquidity, Cipla (24.44%) maintaining moderate stability, and Divi's Lab (18.73%) displaying the most consistent quick ratio performance over the period. Regarding growth trends, the compound annual growth rate (CAGR) indicates that Sun Pharma has achieved the fastest improvement in quick ratio (25.48%), followed by Cipla (12.08%), while Divi's Lab (5.06%) has shown slower but steady growth. Overall, the results highlight that Divi's Lab leads in liquidity strength, Cipla balances high liquidity with stability, and Sun Pharma, though starting from a lower base, has shown the most significant improvement over the five-year period.

ANOVA TEST OF QUICK RATIO

H₀ - There is no significant difference between Quick ratio of selected companies.

H_a - There is significant difference between Quick ratio of selected companies.

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Sun Pharmaceutical Ltd.	5	7.04	1.40	0.68		
Cipla Ltd.	5	15.60	3.12	0.55		
Divi's lab	5	23.03	4.60	1.24		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	25.60	2	12.80	15.45	0.000477823	3.88
Within Groups	9.93	12	0.82			
Total	35.53	14				

Source : Author's calculation through EXCEL

** at 5% significance level

To examine whether there is a statistically significant difference in the mean quick ratios among the three selected pharmaceutical companies Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Laboratories a one-way ANOVA has been conducted. The ANOVA results for the quick ratio shows that the calculated F-value (15.45) is much higher than the critical F-value (3.88) and the p-value (0.00048) is well below 0.05. This indicates a statistically significant difference in the quick ratios among the selected companies. Therefore, the null hypothesis (H_0) is rejected, and it is concluded that the quick ratio varies significantly between Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Lab.

Cash Ratio: The cash ratio is a liquidity measure that assesses a company's ability to meet short-term obligations using only cash and cash equivalents. It is calculated by dividing the total cash and near-cash securities by total current liabilities. This ratio is considered more conservative than other liquidity measures as it focuses solely on the most liquid assets. A cash ratio greater than one indicates that a company has more cash than current debts, while a ratio less than one suggests more short-term debt than cash. Lenders, creditors, and investors utilize the cash ratio to evaluate a company's short-term financial risk.

$$\text{Cash Ratio} = \text{Cash} + \text{Cash Equivalents} / \text{Current Liabilities}$$

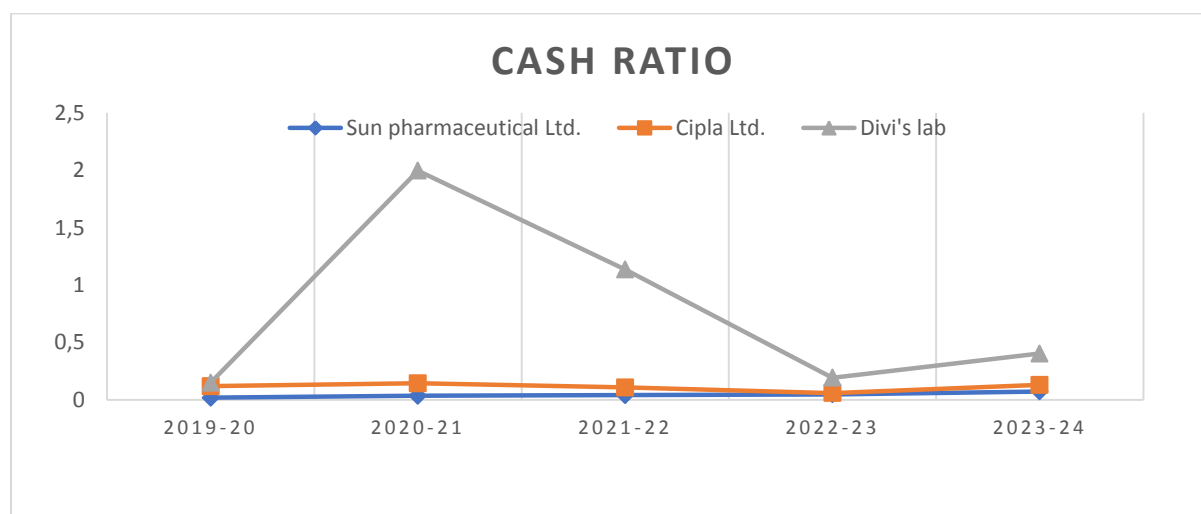
Table 3: Cash Ratio of the Selected Pharmaceutical Companies

	Sun Pharmaceutical Ltd.	Cipla Ltd.	Divi's lab
2019-20	0.02	0.10	0.03
2020-21	0.03	0.11	1.85
2021-22	0.04	0.07	1.03

2022-23	0.05	0.01	0.13
2023-24	0.07	0.06	0.27
Mean	0.04	0.07	0.66
SD	0.02	0.04	0.77
CV%	50.12	56.04	116.24
CAGR%	30	10	55

Source: - Compiled and computed from various Annual reports of selected Pharmaceutical Companies

Chart- 3: Cash Ratio of the Selected Pharmaceutical Companies



Interpretation

Table 3 presents the cash ratio of Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Laboratories for the period from 2019-20 to 2023-24. The mean cash ratio during this five-year period has been found 0.04 for Sun Pharmaceutical Ltd., 0.07 for Cipla Ltd., and 0.66 for Divi's Laboratories, indicating that Divi's Laboratories has maintained a significantly higher average cash position compared to the other two companies. The standard deviation, reflecting the extent of fluctuation in cash ratios, which is 0.02 for Sun Pharmaceutical Ltd., 0.04 for Cipla Ltd., and 0.77 for Divi's Laboratories. When measured in terms of relative volatility through the coefficient of variation (CV), Divi's Laboratories has showed the highest variability at 116.24%, whereas Cipla Ltd. and Sun Pharmaceutical Ltd. has CVs of 56.04% and 50.12% respectively. The Compound Annual Growth Rate (CAGR) of the cash ratio has been noticed 30% for Sun Pharmaceutical Ltd., indicating steady growth, whereas Cipla Ltd. has experienced a slight negative CAGR of -10%, and Divi's Laboratories has recorded the highest growth at 55% over the given period.

ANOVA TEST OF CASH RATIO

H₀ - There is no significant difference between Cash ratio of selected companies.

H₀ - There is significant difference between Cash ratio of selected companies.

SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Sun Pharmaceutical Ltd.	5	0.210	0.042	0.000		
Cipla Ltd.	5	0.350	0.070	0.001		
Divi's lab	5	3.315	0.663	0.594		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	1.23	2	0.61	3.09	0.08	3.88
Within Groups	2.38	12	0.19			
Total	3.61	14				

Source : Author's calculation through EXCEL

** at 5% significance level

To assess whether there is a statistically significant difference in the mean cash ratios among Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Laboratories, a one-way ANOVA has been conducted. The analysis resulted in an F-value of 3.09, which is lower than the F-critical value of 3.88. Additionally, the p-value is 0.08, which is greater than the significance level of 0.05. Based on these results, we fail to reject the null hypothesis, indicating that there is no statistically significant difference in the mean cash ratios among the three pharmaceutical companies at the 5% significance level. This means that although Divi's Lab has a visibly higher average cash ratio (0.663) compared to Cipla (0.070) and Sun Pharma (0.042), the differences are not statistically strong enough to conclude that their liquidity positions, based solely on cash reserves, are significantly different.

Findings:

1. Sun Pharmaceutical Ltd.

Sun Pharmaceutical Ltd. has the lowest average current ratio (1.76) of the three chosen pharmaceutical businesses for the five-year period from 2019-20 to 2023-24. This means that it has relatively less short-term liquidity. The company's current ratio, on the other hand, has experienced the highest Compound Annual Growth Rate (CAGR) of 26%, which means that it is slowly getting better at meeting its current obligations. Sun Pharma also had the lowest average quick ratio (1.37) and the largest relative volatility (CV = 52.62%), which shows that the company's liquid assets has not found always enough. Its quick ratio CAGR has been found 25%, which has the greatest of the three companies. This shows that it is making improvement in terms of liquidity without taking into account its inventories. The company's cash ratio has maintained at an average of 0.04 with a moderate spread (CV = 50.12%), and it became continually with a CAGR of 30%. The results of a one-way ANOVA has showed that there is statistically significant differences in the current and quick ratios between companies. This supports Sun Pharma's weaker but improving liquidity position. However, the differences in cash ratios has not statistically significant, which means that Sun Pharma's lower cash holdings are not statistically different from those of its others.

2. Cipla Ltd.:

Cipla Ltd. has maintained a comparatively stronger liquidity position than Sun Pharmaceutical Ltd. over the period, with an average current ratio of 4.32 and the lowest coefficient of variation (17.25%) among the three, indicating the most stable liquidity performance. While the growth rate in its current ratio has been found moderate (CAGR = 9%), stability remained a key strength. Its quick ratio averaged 3.10, the second highest of the group, with a CV of 24.44%, again reflecting consistency in maintaining adequate liquid assets. The quick ratio CAGR of 12% shows modest improvement over time. However, in terms of cash ratio, Cipla has posted a low average value of 0.07, with a CV of 56.04% and a marginally negative growth rate (-0.10), suggesting a slight decline in absolute cash holdings over the five years. ANOVA analysis has confirmed statistically significant variation in both the current and quick ratios among the companies, situating Cipla in a relatively stable and favorable liquidity position overall. However, cash ratio differences across companies has not reach statistical significance.

3. Divi's Laboratories Ltd.

Divi's Laboratories has consistently exhibited the strongest average liquidity levels in terms of both current ratio (6.81) and quick ratio (4.78) during the study period, reflecting a robust capacity to meet short-term obligations. Despite the strength, the company has showed moderate variability in these ratios, with CV values of 20.65% for current ratio and 18.73% for quick ratio. Growth in these measures was modest, with a CAGR of 8% for current ratio and 5% for quick ratio, indicating stability rather than significant expansion. In terms of cash ratio, Divi's Laboratories far outperformed its peers with a mean value of 0.66, although this figure has been accompanied by the highest volatility (CV = 116.24%) and the strongest growth rate (CAGR = 55%). ANOVA tests has confirmed statistically significant differences between companies in current and quick ratios but not in cash ratios, suggesting that although Divi's cash position is visibly stronger on average, the variation is not statistically significant at the 5% level.

Suggestions:**1. Sun Pharmaceutical Ltd.**

Although Sun Pharmaceutical Ltd. has shown improvement in its liquidity ratios over the study period, its overall current and quick ratios remain lower than those of its peers. The company should aim to enhance its short-term financial strength by increasing the share of liquid assets in relation to current liabilities. Faster recovery of receivables and more efficient inventory turnover could contribute to this improvement. Since growth trends in these ratios are already positive, management can build on this momentum by adopting prudent debt policies and ensuring that repayment schedules are comfortably matched with available liquidity. Maintaining a larger cushion of cash or cash-equivalent assets would also help reduce financial strain during unexpected events.

2. Cipla Ltd.

Cipla Ltd. demonstrates a stable liquidity position, with consistent current and quick ratios over the five years. However, the gradual decline in its cash ratio highlights the need to focus on rebuilding cash reserves. This can be done by reviewing cash management strategies and considering low-risk, highly liquid short-term investments. Reducing working capital tied up in receivables and inventories without impacting production or distribution efficiency could also free up more cash. By preserving its stability while strengthening cash holdings, Cipla can further enhance its financial resilience.

3. Divi's Laboratories Ltd.

Divi's Laboratories exhibits the strongest average liquidity among the companies studied, yet its cash ratio fluctuates widely. To address this, the company should focus on smoothing cash flows by better coordinating inflows and outflows, and by holding a steady reserve of cash. As current and quick ratios are already high, the emphasis should be on efficient use of assets to avoid excess idle resources. Surplus liquidity could be invested in secure, short-term instruments to generate additional income without compromising the firm's flexibility.

Conclusion:

The comparative analysis of liquidity ratios namely current ratio, quick ratio, and cash ratio for Sun Pharmaceutical Ltd., Cipla Ltd., and Divi's Laboratories Ltd. over the five-year period from 2019–20 to 2023–24 reveals notable differences in their short-term financial strengths.

Divi's Laboratories consistently recorded the highest average current and quick ratios, indicating an exceptional ability to meet short-term obligations. Its significantly superior cash ratio further reinforces this strong liquidity profile, although higher volatility in cash holdings suggests variability in cash management practices. Cipla Ltd. has the second most company, with consistent and reasonably high current and quick ratios and the least amount of change between the three companies. But because its cash ratio is slowly going down, cash reserve management needs to be looked at more closely. Sun Pharmaceutical Ltd., despite starting from a comparatively weaker liquidity position, registered the most notable growth in both current and quick ratios over the study period, signifying a positive trend in improving its short-term financial capacity. Nevertheless, its absolute liquidity levels remain the lowest among the three. Overall, based on average ratio values, stability, and ability to cover short-term obligations, Divi's Laboratories holds the strongest liquidity position, followed by Cipla Ltd., while Sun Pharmaceutical Ltd. remains in a relatively weaker but steadily improving position. This ranking aligns with the findings and supports the research objectives of evaluating and comparing liquidity positions and trends across the selected pharmaceutical companies.

Conflict of Interest

The authors declare no conflict of interest. All observations, interpretations, and recommendations presented in this article are based on professional experience and research conducted independently.

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