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# TO ANALYSE LIQUIDITY PERFORMANCE OF SELECTED PHARMA COMPANIES

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## ABSTRACT

The Indian pharmaceutical market accounts for around 2.4% of the global pharmaceutical industry in terms of revenue and 10% in terms of production and is forecast to grow from US$ 20 billion in 2015 at a Compound Annual Growth Rate (CAGR) of 15.92% to US$ 55 billion by 2020. Generic drugs constitute the biggest segment of the Indian pharmaceutical industry with a market share of 71 percent. Through 2016, India is expected to be the world's third-largest consumer market for Active Pharmaceutical Ingredient (API). The nation accounts for the second highest number of Abbreviated New Drug Applications (ANDAs) and is the world leader in approvals with the US for Drug Master Files (DMFs).

This research was conducted for critical assessment of Indian pharmaceutical industry. Since 2009-10 to 2018-19, the research duration is 10 years to evaluate and assess the LIQUIDITY performance of leading pharmaceutical firms and comparison amongst them.

**KEYWORDS:** Pharmaceutical, India, Liquidity.

## INTRODUCTION:

The Indian pharmaceutical market accounts for around 2.4% of the global pharmaceutical industry in terms of revenue and 10% in terms of production, and is projected to grow from US$ 20 billion in 2015 at a Compound Annual Growth Rate (CAGR) of 15.92% to US$ 55 billion by 2020.

Generic drugs constitute the biggest segment of the Indian pharmaceutical industry with a market share of 71 per cent. By 2016, India is expected to be the world's third-largest market for generic Active Pharmaceutical Ingredient (API). The nation accounts for the second-largest number of Abbreviated New Drug Applications (ANDAs) and is the world leader with the US in approvals for Drug Master Files (DMFs).

Indian products are exported to over 200 countries worldwide, with the United States as the main market. Generic drugs account for 20 % of global exports in terms of value, making the nation the world's largest producer of generic medicines and expected to grow further in the coming years. The Pharmaceuticals Exports Promotion Council (Pharmexcil) expect pharmaceutical exports in 2015 to reach US$ 25bn.

India's government aims to create a US$ 640 million venture capital fund to support drug research and strengthen pharmaceutical infrastructures. The Government's Pharmaceuticals Department's 'Pharma Vision 2020' seeks to make India a global centre for end-to - end drug research.

## MARKET SIZE:

In February 2016, the domestic pharmaceutical industry expanded at a CAGR of 12 per cent year-on-year, largely consistent with the 12.9 per cent rate since April 2015. Indian pharmaceutical companies are seeing prospects for acquisition in Japan 's growing generic market as the Japanese government plans to expand the penetration of generic drugs from 30% in 2014 to 60% of the market by 2017 as a result of aging demographics and increasing health costs.

India has the highest number of plants which are compliant with the US FDA. In 2020 the market is projected to hit US$ 55 million, of which US$ 30 million will be eligible for exports.

India's biotechnology sector, which includes bio-pharmaceuticals, bio-services, bio-farming, bio-industry and bio-informatics, is projected to expand at an estimated annual growth rate of about 30 per cent, touching US$ 100 billion by 2025. Biopharma, consisting of vaccines, therapeutics and diagnostics, is the main sub-sector contributing approximately 62 per cent of overall Rs 12,600 crore ( US$ 1,9 billion) revenues.

## GOVERNMENT INITIATIVES:

The Indian Pharmacopoeia (IP) 2014 Addendum, issued by the Indian Pharmacopoeia Commission (IPC) on behalf of the Ministry of Health & Family Welfare, is expected to play a significant role in improving the quality of medicines that will in effect foster public health and boost pharmaceutical industry growth and development.

India's government launched 'Pharma Dream 2020' promising to make India a world pioneer in end-to - end drug development. Shortened clearance periods for new projects to raise demand. Moreover, the government adopted measures such as the Drug Price Control Order and the National Pharmaceutical Pricing Authority to tackle the issue of cost and product quality.

Several of the Government's main steps to develop the Indian pharmaceutical industry are as follows:

- The Indian Pharmaceutical Association (IPA), India's professional association of pharmaceutical firms, aims to create guidance on data transparency which will help compare and benchmark the output of Indian companies with global peers.
- The Government of India aims to attract large-scale drug producers, from both state-owned and private firms, to support the 'Made in India' policy and minimize reliance on imports of active pharmaceutical ingredients (APIs), almost 85% of which originate in China.
- The Pharmaceutical Department has formed an inter-ministerial coordination committee to regularly study, organize and promote the settlement of the issues and constraints faced by the Indian pharmaceutical companies and pharmaceutical products.
- The Pharmaceuticals Department decided to launch a Rs 1,000 crore venture capital fund (US$ 154 million) to finance start-ups in pharmaceutical and biotech research and development.
- In the Gujarat pharmaceutical market, Indian and foreign firms have shared 175 Rs 1,000 crore ( US$ 146.72 million) investment plans. The Memoranda of Understanding (MoUs) will be signed at the Lively Summit in Gujarat.
- Telangana proposed the establishment of India's largest integrated pharmaceutical city, spread over 11,000 acres in the vicinity of Hyderabad, with effluent treatment plants and an employee township to draw investment of Rs 30,000 crore (US$ 4.41 billion) in phases. Hyderabad, which is known as the bulk drug capital of India, accounts for nearly a fifth of India's exports of drugs, which stood at Rs 95,000 crore (US$ 13.94 billion) in 2014-15.
- At the launch of the Pharmaceutical Industry Development Cluster, Mr Ananth Kumar, Minister of Fertilizers and Chemicals, announced that this year six pharmaceutical parks would be approved and developed with appropriate infrastructure and facilities for the testing and treatment of medicines, as well as for the training of professionals in the sector.

## ROAD AHEAD:

The size of the Indian pharmaceutical industry is projected to rise to US$ 100 billion by 2025, led by growing consumer spending, rapid urbanization and, among others, raising health insurance.

Moving forward, improved domestic market growth will also rely on companies' willingness to match their drug portfolio with increasing chronic therapies for diseases such as cardiovascular disease, anti-diabetes, anti-depressants, and anti-cancers.

The Indian government has taken several steps to curb prices and increased healthcare expenditures. The fast penetration of generic products into the industry has remained focused and the Indian pharmaceutical firms are expected to benefit.In addition, the thrust on rural health programmes, lifesaving drugs and preventive vaccines also augurs well for the pharmaceutical companies.

**LITERATURE REVIEW:**

Indian Pharmaceutical Industry Liquidity Research is a specific field of study and not a particularly common topic to write on. There are various publications and research papers written for India's Liquidity and Pharmaceutical Industry, but none is of direct interest to this report.

The present thesis is a special research work that is understudy for selected companies and for a specified duration. Apart from the financial analysis, there are some technical points included. Which are the union of Travels, WTO, Patent Policy, and numerous national and foreign pharmaceutical manufacturers association.

The researcher has referred Keshab Das 's work on TRIPS and its political ramifications to get the insights into the matter. Professor Robert Tancer has served as a gateway for investment in the Indian Pharmaceutical Industry. Robert Warren has worked in the pharmaceutical business.

Similar kind of research was performed at the same university before a long 16-year gap. The thesis was focused by Dr. Shashi A. Jain in the year 1990 on working capital management, entitled "Pharmaceutical Industry Working Capital Management in India." The research sought to examine the working capital structure of the listed pharmaceutical firms in depth for a period of time.

In May 1992 Dr. Akhileshwar Sharma performed another big research study on the subject "Profitability Assessment of Drugs and Pharmaceutical Companies in India." This research sought to use multiple metrics to figure out the profitability status of different chosen units over that time span.

Yet the analysis above was done in the situation when economy was in a closed state. The measures toward liberalization by restructuring and integration were introduced by Lt. Shri Narsimha Rao, then Prime Minister of India, and a steady trend was observed in India's economy.

With the WTO agreement and market de-regulation and the enforcement of the Patent Act, a drastic shift is witnessed in India's pharmaceutical sector that renders the context for the report.

Some information on the sector is accessible from the Web at national and international level, and it can be obtained by different search engines.

**RESEARCH OBJECTIVE:**

1. To recognize some partnerships between companies in the various liquidity measures
2. Studying India's Pharmaceutical industry
3. To research various methods of calculating the viability of Gujarat's chosen pharmaceutical firms.

**RESEARCH METHODOLOGY:**

**Sources of Data:**

Secondary sources of data will be utilised for this proposed research study

Secondary data have been collected from Company Annual Reports.

**Universe:**

In the investigation study nominated 14 Pharmaceutical companies.

**Period of Data Coverage:**

Ten years of financial statements will be analysed for Pharmaceutical companies taken under study.

**ANALYSIS OF DATA:**

The mathematical methods used for the data processing are ratio analysis and ANOVA research. Current Ratio and Fast Ratio are used to assess the efficiency of the firms chosen for the research analysis being suggested.

**DATA ANALYSIS:**

**Current Ratio:**

**CURRENT RATIO**

| COMPANY NAME | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| Alembic Ltd | 1.05 | 0.81 | 0.74 | 0.87 | 1.08 | 1.02 | 1.01 | 0.92 | 1.02 | 0.94 |
| Ambalal Sarabhai Enterprises Limited | 0.25 | 0.31 | 0.44 | 0.64 | 0.67 | 0.56 | 0.68 | 0.66 | 0.82 | 0.80 |
| Cadila Healthcare Ltd | 1.20 | 1.03 | 1.15 | 1.29 | 1.21 | 1.03 | 0.98 | 1.00 | 0.98 | 0.91 |
| Coral Laboratories Limited | 3.91 | 2.39 | 2.42 | 2.12 | 1.19 | 1.03 | 1.24 | 1.13 | 1.39 | 1.01 |
| Dishman Pharmaceuticals & Chemicals Limited | 1.01 | 0.93 | 0.94 | 0.77 | 1.20 | 1.24 | 1.05 | 1.09 | 2.10 | 1.05 |
| Gujarat Terce Laboratories Ltd. | 1.62 | 1.78 | 3.91 | 1.63 | 2.61 | 2.84 | 2.46 | 2.53 | 1.83 | 2.24 |
| Gujarat Themis Biosyn Limited | 0.28 | 0.23 | 0.29 | 0.12 | 0.14 | 0.10 | 0.12 | 0.15 | 0.51 | 0.58 |
| Lincoln Pharmaceuticals Limited | 1.10 | 0.99 | 0.96 | 1.09 | 1.15 | 1.23 | 1.23 | 1.37 | 1.38 | 1.31 |
| Sun Pharma Advanced Research Company Limited. | 2.77 | 0.48 | 0.17 | 0.33 | 0.34 | 0.45 | 1.68 | 4.55 | 15.15 | - |
| Sun Pharmaceuticals Industries Ltd | 0.79 | 2.31 | 2.68 | 3.09 | 2.14 | 2.53 | 2.52 | 5.57 | 5.23 | 4.78 |
| Themis Medicare Limited | 0.66 | 0.65 | 0.54 | 0.78 | 0.73 | 0.81 | 0.89 | 0.91 | 0.75 | 0.91 |
| Torrent Pharmaceuticals Limited | 2.02 | 1.59 | 1.39 | 1.53 | 1.51 | 1.66 | 1.42 | 1.65 | 1.77 | 1.25 |
| Unjha Formulations Ltd. | 0.75 | 0.65 | 0.52 | 1.34 | 2.08 | 1.61 | 4.48 | 4.35 | 3.95 | 9.10 |
| Zenith Health Care Ltd. | 5.97 | 6.48 | 8.16 | 9.25 | 7.57 | 10.38 | 12.06 | 9.13 | 11.56 | 11.05 |

Balance ratio helps calculate company's ability to fulfill its net obligations. It can be inferred from the above tables and charts that Pharma firms operating in Gujarat have lower current levels compared with previous years. These current ratio ratios give the inference that in earlier years, Drug firms had more capital assets to meet gross obligations than in recent years. Pharma firms had the highest existing level in the year 2006 led by 2005, 2007. 2013 was last year, with the lowest existing level.

**ANOVA**

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 632.65168 | 13 | 48.665514 | 18.660051 | 1.94E-23 | 1.7992187 |
| Within Groups | 326.00068 | 125 | 2.6080054 | | | |
| Total | 958.65236 | 138 | | | | |

*Fcal>Ftab and p-value is less than specified α of 0.05.*

So, null hypothesis is rejected and it is concluded that the difference is seen in Current Ratio of selected pharmaceutical companies.

**Quick Ratio:**

**QUICK RATIO**

| COMPANY NAME | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| Alembic Ltd | 0.49 | 0.28 | 0.84 | 0.89 | 1.10 | 1.34 | 1.40 | 2.06 | 1.15 | 1.06 |
| Ambalal Sarabhai Enterprises Limited | 0.35 | 0.40 | 0.42 | 0.66 | 0.63 | 0.49 | 0.76 | 0.77 | 0.87 | 0.82 |
| Cadila Healthcare Ltd | 1.18 | 1.40 | 1.14 | 1.03 | 0.97 | 1.06 | 0.95 | 0.82 | 0.86 | 0.64 |
| Coral Laboratories Limited | 3.23 | 1.95 | 1.80 | 1.11 | 0.92 | 0.71 | 0.79 | 0.69 | 0.91 | 0.66 |
| Dishman Pharmaceuticals & Chemicals Limited | 1.57 | 1.43 | 1.21 | 1.38 | 2.07 | 2.27 | 1.88 | 1.55 | 3.78 | 1.90 |
| Gujarat Terce Laboratories Ltd. | 2.44 | 2.01 | 2.90 | 1.28 | 1.89 | 1.72 | 1.73 | 1.88 | 1.46 | 1.91 |
| Gujarat Themis Biosyn Limited | 0.33 | 0.31 | 0.26 | 0.21 | 0.33 | 0.35 | 0.44 | 0.41 | 1.19 | 1.48 |
| Lincoln Pharmaceuticals Limited | 2.19 | 2.25 | 2.00 | 2.49 | 2.18 | 1.77 | 1.82 | 2.23 | 2.38 | 2.13 |
| Sun Pharma Advanced Research Company Limited. | 2.82 | 2.29 | 0.20 | 0.13 | 0.13 | 0.11 | 1.70 | 4.55 | 15.15 | |
| Sun Pharmaceuticals Industries Ltd | 1.03 | 1.82 | 2.33 | 2.74 | 1.52 | 2.17 | 2.27 | 5.25 | 5.04 | 5.07 |
| Themis Medicare Limited | 0.80 | 0.90 | 1.07 | 1.40 | 1.40 | 1.29 | 1.47 | 1.11 | 1.28 | 1.57 |
| Torrent Pharmaceuticals Limited | 1.81 | 1.24 | 1.25 | 1.39 | 1.65 | 1.57 | 1.22 | 1.06 | 1.01 | 0.59 |
| Unjha Formulations Ltd. | 0.55 | 0.49 | 0.49 | 1.21 | 1.33 | 1.16 | 3.81 | 3.33 | 2.24 | 7.28 |
| Zenith Health Care Ltd. | 4.53 | 5.30 | 6.67 | 7.63 | 6.23 | 8.48 | 9.63 | 7.55 | 9.94 | 9.54 |

Fast ratio helps calculate the willingness of the company, with the most volatile assets, to satisfy the short-term obligations. Similar to the current ratio and it can be inferred from the above tables and charts that Pharma companies operating in Gujarat have lower rapid ratios compared to previous years. These accelerated ratio values lead in Pharma firms having more liquid reserves in previous years to meet shirt-term commitments than in current years. Pharma firms had the largest fast ratio in the year 2006, followed by 2005, 2007. 2013 was last year, with the lowest existing level. Zenith Health Care Ltd has the highest rapid ratio with Gujarat Themis Biosyn Limited having the lowest rapid ratio.

**ANOVA**

| Source of Variation | SS | df | MS | F | P-value | F crit |
|---|---|---|---|---|---|---|
| Between Groups | 398.32732 | 13 | 30.640563 | 12.756217 | 2.018E-17 | 1.7992187 |
| Within Groups | 300.25128 | 125 | 2.4020102 | | | |
| Total | 698.5786 | 138 | | | | |

*Fcal>Ftab and p-value is less than specified α of 0.05.*

So, null hypothesis is rejected and it is concluded that the difference is seen in Quick Ratio of selected pharmaceutical companies

## CONCLUSION:

From the data comparison table above; it can be inferred that Pharmaceutical firms operating in Gujarat have lower current ratios relative to previous years. These cost-ratio ratios contribute to the assumption that Drug firms had more capital assets in earlier years to meet net obligations than in recent years. Pharmaceutical companies had the largest existing percentage in 2006, followed by 2005, 2007. The last year of 2013 was the lowest existing level. Pharmaceutical firms operating in Gujarat have lower accelerated ratios relative to previous years. These accelerated ratio prices lead in Pharmaceutical firms getting more liquid reserves in past years than in current years to meet shirt-term obligations. Pharmaceutical firms had the largest fast ratio in 2006, followed by 2005, 2007. 2013 was the last year with the lowest existing level. Zenith Health Care Ltd has the highest rapid ratio, with Gujarat Themis Biosyn Limited having the lowest rapid ratio. Difference is shown in the listed pharmaceutical firms' Current Ratio. Fast Comparison of selected pharmaceutical firms indicates a difference.

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