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Research Article

A Sectoral Analysis of the Indian Pharmaceutical Industry Using Dupont Analysis

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ABSTRACT

The pharmaceutical sector in India plays a pivotal role in healthcare both domestically and globally. Known as the "Pharmacy of the World," India supplies over 50% of the global demand for various vaccines, approximately 40% of the generic demand in the United States, and a significant portion of medicines required in developing nations. India also accounts for 70% of WHO's vaccines (as per the essential Immunization schedule) and is a leading supplier of DPT, BCG and Measles vaccines. According to Invest India, the pharmaceutical industry in India is currently valued at $50 Bn and recorded a turnover of INR 4,17,345 Cr in 2023-24, a growth of 10% over 2022-23.

Keywords: portion, globally, Immunization, DPT

INTRODUCTION

A sectoral analysis of the pharmaceutical industry is crucial for understanding the varied dynamics and identifying factors that drive financial performance across different market capitalizations. By examining trends, regulatory impacts, and growth drivers specific to this sector, sectoral analysis provides context for assessing individual firms within a broader industry framework.

This research aims to perform a sectoral analysis of Indian pharmaceutical companies and assess their financial performance by applying the DuPont Analysis, a comprehensive method that breaks down Return on Equity (ROE) into profit margin, asset turnover, and financial leverage. By disaggregating ROE into these key components, the DuPont equation allows for a detailed examination of each company's profitability drivers and financial strategy, providing a clearer view of the factors influencing returns on shareholder equity.

This study will analyze nine Indian pharmaceutical companies listed on the stock market. The nine firms have been divided into large, medium or small by market capitalization. By comparing these companies through the lens of the DuPont equation, this paper aims to uncover patterns and variances in profitability drivers across different scales of operations. Additionally, the findings could offer actionable insights for investors looking to navigate the diverse and evolving landscape of the Indian pharmaceutical sector.

LITERATURE REVIEW

Venkata Lakshmi Suneetha, M. & Aithal, P. S. (2024), evaluated the relevance of EPS and DPS as key financial metrics in the pharmaceutical industry given the regulatory complexities, patent expirations and R&D Investments present in the industry. They presented how EPS and DPS were utilised in analysing the financial health and investment attractiveness of pharmaceutical firms in India, considering the sector-specific challenges and opportunities. Their use of descriptive statistics, including Mean, Standard Deviation, Skewness, and Kurtosis, provides a detailed snapshot of stock characteristics, while an ANOVA test identified significant differences in EPS and DPS among firms. Findings indicated that while there were no significant differences between EPS as well DPS in large and medium-cap selected pharma stocks, significant differences were found in EPS and DPS of selected small-cap firms.

V, V., & M, S. (2014) made use of various profitability ratios such as the Operating Profit Ratio, Return on Equity (ROE), and Earnings Per Share (EPS) for various leading companies in the Indian Pharmaceuticals sector. It emphasizes the variability in these financial ratios across firms and over time, showing that while some companies like Sun Pharma and Dr. Reddy's Laboratories demonstrate robust profitability, others like Ranbaxy and Aurobindo experience more significant fluctuations. The study underlines the importance of using multiple financial metrics to evaluate a company's performance comprehensively, especially in an industry subject to intense competition, regulatory changes, and varying market conditions.

Sheela, S. C., & Karthikeyan, K. (2012), apply the DuPont analysis on the top-performing Indian pharma companies from 2003-12. The study suggests that relative measures like ROI and ROE, rather than absolute figures, offer a deeper insight and more accurate reflection of operational efficiency and profitability, supporting more informed investment decisions. This approach underscores the importance of contextual financial ratios for evaluating and forecasting a company's competitive standing within its industry.

Pandey, N. S. (2017) study on corporate leverage and profitability offers a comprehensive empirical analysis of the relationship between financial leverage and profitability within the pharma sector. The research emphasizes how varying levels of leverage have a significant, relationship with profitability. Specifically, the study showed that moderate levels of leverage tend to enhance profitability, as firms can leverage debt to fund expansion, thereby increasing returns. However, excessive leverage can have the opposite effect, reducing profitability due to higher interest obligations and financial risk. Overall the study contributes valuable insights into how pharmaceutical firms in India can balance debt to maximize profitability, offering practical implications for managers and policymakers in the sector.

The study by Raval, N., Mandaviya, M., & Gajera, A. (2021) on the financial performance of selected equity stocks within the Indian pharmaceutical industry offers a detailed analysis of key financial metrics to assess company performance. The research highlights the significant role of the pharmaceutical industry in India and focuses on the period between 2009 and 2019, during which India's pharmaceutical market saw considerable growth.

They employ financial analysis tools like ANOVA and T-tests to assess the profitability and stability of selected pharmaceutical companies. The paper stresses the importance of understanding the balance between profit maximization and wealth expansion when measuring corporate performance. Moreover, the study discusses the interconnectedness of profitability and wealth creation within the sector, offering insights into the financial dynamics that drive the Indian pharmaceutical industry's growth. It serves as a valuable resource for investors and analysts aiming to evaluate the performance of pharmaceutical stocks in India, highlighting the use of financial metrics to guide investment decisions

Mittal, S. & Sharma, D., (2021) employ an event study methodology to analyze the stock performance of companies within the pharmaceutical sector during the early stages of the pandemic, specifically from 15 May 2019 to 24 April 2020. This analysis examines the impact of the pandemic as an external shock, comparing the abnormal returns and cumulative abnormal returns of healthcare and pharmaceutical stocks against other sectors during the event period. The study showed that the sector exhibited significant abnormal returns during the pandemic. However, when compared to other sectors like hospitality and tourism, which suffered significant losses, the returns for the healthcare sector did not show a statistically significant difference. The healthcare sector's stock prices were driven more by the expected rise in demand for medical solutions, even though the sector also faced challenges due to disruptions in the supply chain, especially from China, a key source of raw materials for the pharmaceutical industry. Their study contributes to the growing body of literature on the economic impacts of pandemics, providing a specific look at India's healthcare and pharmaceutical industries during the early months of COVID-19

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RESEARCH OBJECTIVE

- **Evaluate the Financial Performance:** Analyze the financial performance of selected large, medium and small cap Pharmaceutical stocks using DuPont Analysis to deconstruct Return on Equity into its key components: profitability (net profit margin), operational efficiency (asset turnover), and financial leverage.
- **Provide Investment Insights:** Offer insights for investors by comparing the financial health of pharmaceutical companies based on the results of the DuPont Analysis, helping to identify the financially better firms in the sector.

RESEARCH METHODOLOGY AND DESIGN

Source of Data - This study depends on the auxiliary information. To examine the Indian Pharmaceutical sector using DuPont Analysis, required monetary information of test organisations was gathered from yearly standalone reports of particular organisations; money control, screener and BSE sites.

Sample Design - The current study's sample consists of nine leading pharma companies. A study period of 8 years from the financial year 2016-17 to 2023-24 has been taken. Based on the market capitalisation, companies are segregated into Small, Medium and Large-sized companies

- Large Cap - Sun Pharma, Dr Reddys Laboratories, Zydus Lifesciences
- Medium Cap - Aurobindo, Glenmark Pharma, Laures Labs,
- Small Cap - Natco Pharma, Morepen Labs, Granules India

Tools of Analysis - DuPont Analysis

DuPont Analysis is a financial performance framework that breaks down a company's Return on Equity (ROE) into three key components, providing deeper insights into the factors driving profitability. These components are:

1. Net Profit Margin (Profitability): Indicates how efficiently a company converts revenue into profit.
2. Asset Turnover (Efficiency): Measures the efficiency of a company in using its assets to generate revenue.
3. Equity Multiplier (Leverage): Reflects the degree to which a company uses financial leverage to fund its assets.

The formula for DuPont Analysis is:

$$ROE = Net\ Profit\ Margin \times Asset\ Turnover \times Equity\ Multiplier$$
$$ROE = (Net\ Income / Revenue) \times (Revenue / Total\ Assets) \times (Total\ Assets / Equity)$$

This method is particularly effective for identifying the strengths and weaknesses in a company's operational and financial strategies. In the context of pharmaceutical companies, DuPont Analysis helps dissect how firms balance profitability, asset management, and leverage in a highly competitive and regulated industry. In this particular study, for better analysis of the profitability, sales are taken as revenue and other incomes have been ignored.

DATA ANALYSIS AND INTERPRETATION

Analysis of Large Cap Pharma Stocks

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Table 1 - DuPont Breakdown for Sun Pharma from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	-0.003007322	0.225811214	1.611811736	-0.109%
2017-2018	0.034068136	0.244129159	1.648165569	1.371%
2018-2019	0.079297292	0.273187676	1.650936789	3.576%
2019-2020	0.256224066	0.326269201	1.574438433	13.162%
2020-2021	0.059648626	0.32276209	1.623482683	3.126%
2021-2022	-0.006416014	0.38233779	1.657922564	-0.407%
2022-2023	0.081251201	0.507770757	1.725913761	7.121%
2023-2024	0.140961776	0.493729453	1.733139191	12.062%

Table 2 - DuPont Breakdown for Dr. Reddy's Laboratories from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.142386831	0.590989238	1.41772261	11.930%
2017-2018	0.060583396	0.547309942	1.448170732	4.802%
2018-2019	0.120176925	0.653988183	1.280983917	10.068%
2019-2020	0.247932489	0.608441158	1.281990521	19.339%
2020-2021	0.163757585	0.617152104	1.273626568	12.872%
2021-2022	0.112669212	0.588055193	1.335951134	8.851%
2022-2023	0.15405023	0.668453202	1.239376771	12.763%
2023-2024	0.222849518	0.64178662	1.252433993	17.913%

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Table 3 - DuPont Breakdown for Zydus from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.204890127	0.292477596	1.669235419	10.003%
2017-2018	0.18777969	0.477638935	1.570561653	14.087%
2018-2019	0.246148749	0.44159169	1.595402031	17.342%
2019-2020	0.222624862	0.383458192	1.469982238	12.549%
2020-2021	0.189717224	0.421360485	1.448838669	11.582%
2021-2022	0.109480669	0.441770011	1.339879154	6.480%
2022-2023	0.175103069	0.424625559	1.507735171	11.210%
2023-2024	0.318144006	0.449200747	1.532417128	21.900%

Large Cap Pharma Companies - Net Profit Margin			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation (C.V)**
Sun Pharma	0.080	0.086	107%
Dr. Reddy's	0.153	0.060	39%
Zydus	0.207	0.060	29%

Table 4 - Profitability Statistics of Large Cap Companies for the selected time period

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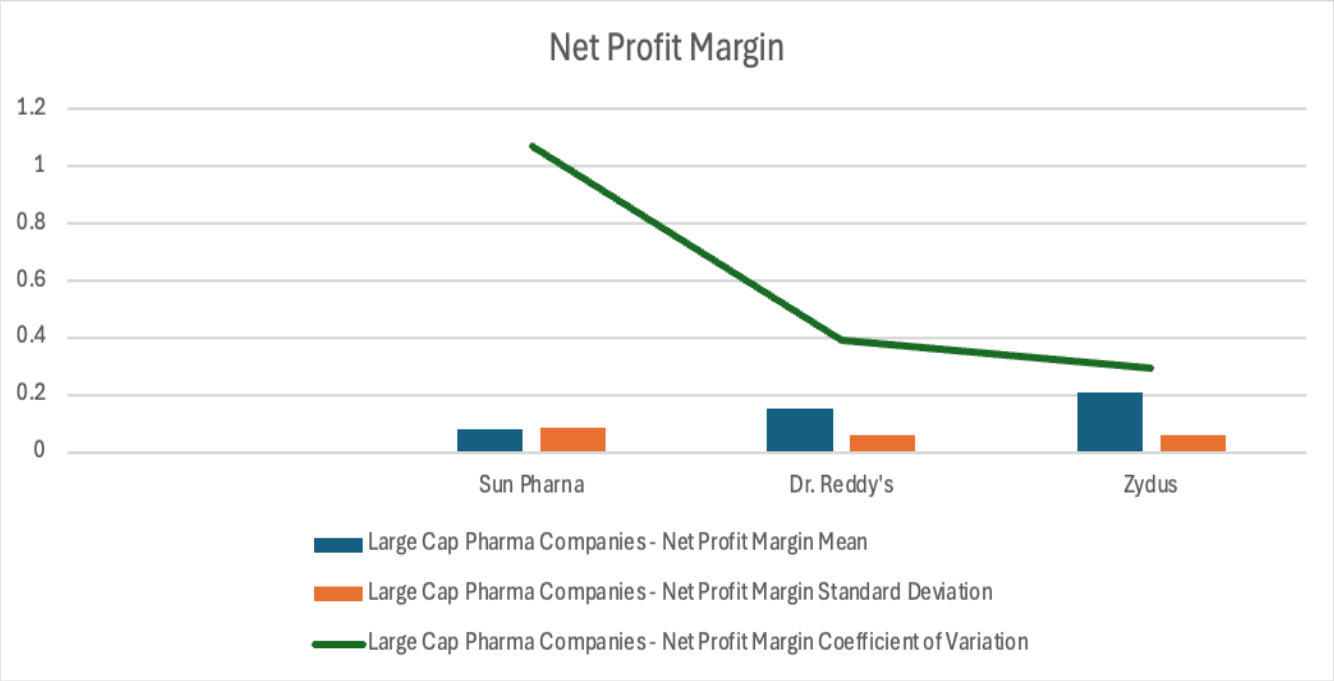

Figure 1 - Statistics of Profitability of Large Cap Pharma Companies

Inference - Zydus emerges as the most attractive option from a stability and profitability perspective, with the highest mean of 0.207 and the lowest relative variability with the least coefficient of variability (29%). Dr. Reddy's offers a balance between profitability and consistency, making it a relatively stable investment option. On the other hand, Sun Pharma's high variability shown by the C.V. of 107% and low mean profit margin may signal potential risks.

Table 5 - Efficiency Statistics of Large Cap Companies for the selected time period

Large Cap Pharma Companies - Asset Turnover			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation (C.V)**
Sun Pharma	0.347	0.107	30.88%
Dr. Reddy's	0.615	0.040	6.46%
Zydus	0.417	0.057	13.65%

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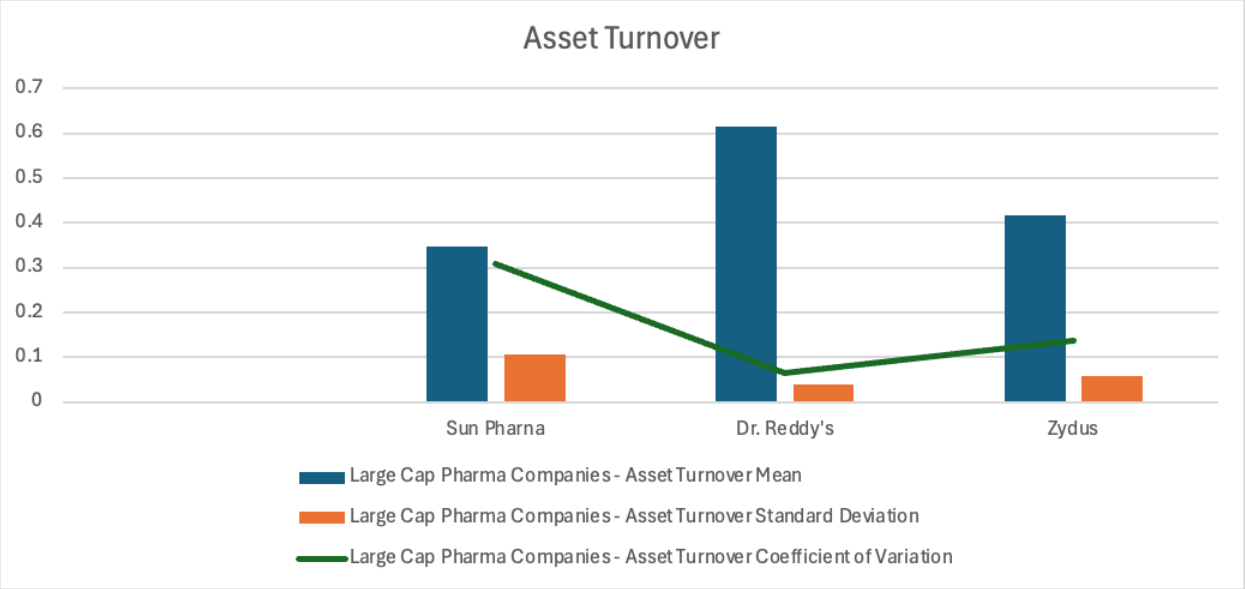

Figure 2 - Statistics of Operational Efficiency of Large Cap Pharma Companies

Inference - Dr. Reddy's emerges as a top choice for stakeholders focused on operational efficiency because of the highest asset turnover over the period of study and also given it's the most stable as suggested by the lowest C.V (6.45%). Zydus offers a balanced option with moderate efficiency and stability compared to the other two in the category. Sun Pharma has the worst operating efficiency in the sample group, with the lowest mean asset turnover as well as the highest variability.

Table 6 - Statistics of Financial Leverage of Large Cap for the selected time period

Large Cap Pharma Companies - Equity Multiplier			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation (C.V)**
Sun Pharma	1.653	0.054	3.28%
Dr. Reddy's	1.316	0.078	5.91%
Zydus	1.517	0.101	6.63%

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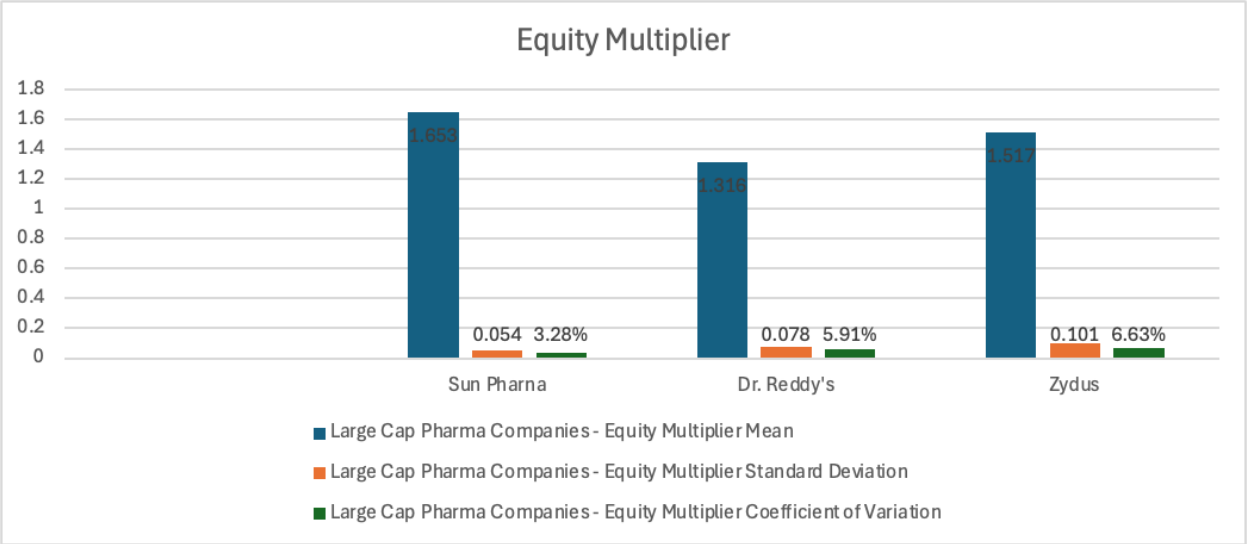

Figure 2 - Statistics of Financial Leverage of Large-Cap Pharma Companies

Inference - Equity is generally stable given the changes in equity only happen due to changes in reserves of the company. Hence using C.V. as well as S.D to analyze the stability may not be the best method.mSun Pharma's high financial leverage might offer opportunities for growth, but it requires careful management of debt to avoid financial distress. Dr. Reddy's lower reliance on leverage may appeal to risk-averse stakeholders, as it signals a conservative approach to financing. Zydus has a moderate financial leverage though a greater level of variability in the equity multiplier.

Table 7 - Statistics of ROE of Large Cap for the selected time period.

Large Cap Pharma Companies - ROE			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Sun Pharma	4.99%	5.28%	105.83%
Dr. Reddy's	12.32%	4.70%	38.18%
Zydus	13.14%	9.67%	73.55%

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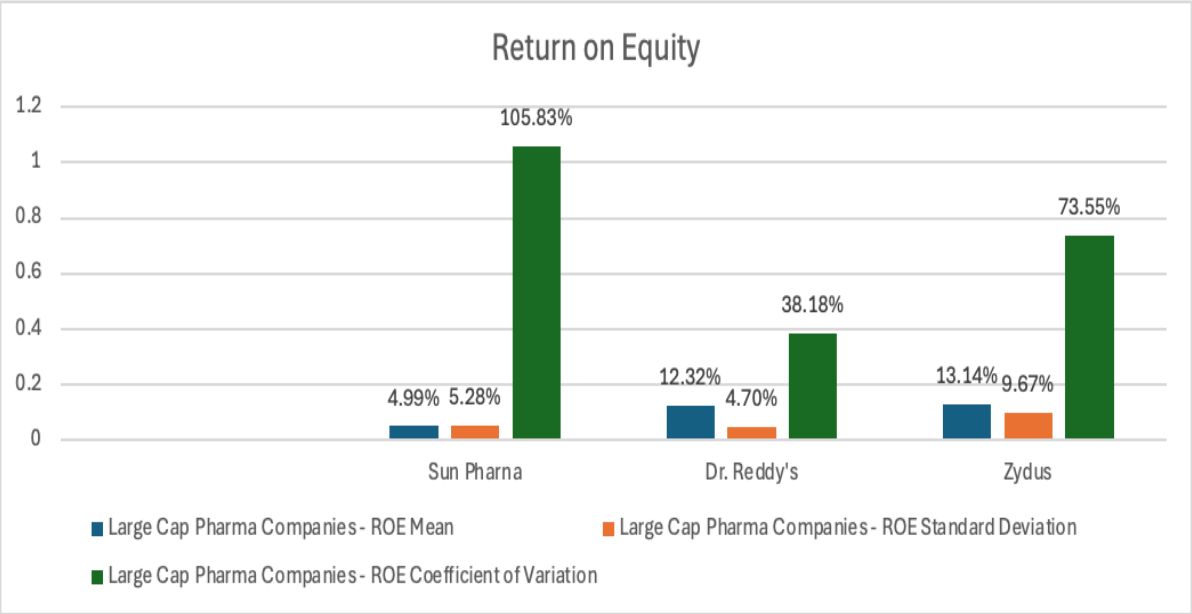

Figure 4 - Statistics of ROE of Large Cap Pharma Companies

Inference - Zydus shows a high return on equity but should focus on reducing variability to enhance investor confidence while maintaining its high profitability. Dr. Reddy's stands out as the most consistent and reliable performer, likely appealing to risk-averse investors. Its high profitability also makes it one of the top choices. Sun Pharma needs to address its low ROE and high variability through better cost management, operational efficiency, or strategic investments to improve shareholder returns.

Analysis of Mid-Cap Pharma Stocks

Table 8 - DuPont Breakdown for Aurobindo from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.17768294	0.737694848	1.543558137	20.23%
2017-2018	0.176533593	0.650246929	1.582089552	18.16%
2018-2019	0.124816446	0.675706962	1.598185182	13.48%
2019-2020	0.140378431	0.683449192	1.498812534	14.38%
2020-2021	0.196726491	0.682392514	1.456138148	19.55%
2021-2022	0.128909365	0.522522105	1.261888071	8.50%
2022-2023	0.14508691	0.337483539	1.389541976	6.80%
2023-2024	0.183543115	0.423232885	1.275363788	9.91%

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Table 9 - DuPont Breakdown for Glenmark Pharma from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.267993491	0.5706021	1.483785502	23%
2017-2018	0.183695652	0.36161153	1.469059763	10%
2018-2019	0.257256146	0.367788602	1.435521688	14%
2019-2020	0.201847162	0.354210637	1.432935128	10%
2020-2021	0.217891121	0.367057911	1.392261463	11%
2021-2022	0.245394252	0.35532862	1.368980762	12%
2022-2023	0.147062401	0.334377288	1.375286681	7%
2023-2024	0.654796604	0.287845626	1.193469743	22%

Table 10 - DuPont Breakdown for Laurus Labs from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.105708245	0.70781893	1.971238938	14.749%
2017-2018	0.085347805	0.673869681	1.988103106	11.434%
2018-2019	0.042486583	0.67389994	2.086792453	5.975%
2019-2020	0.095459421	0.748060979	2.058920705	14.703%
2020-2021	0.200461313	0.847822222	2.074115044	35.251%
2021-2022	0.159337157	0.712210622	1.950708383	22.137%
2022-2023	0.131647324	0.82969244	1.715060389	18.733%
2023-2024	0.046550291	0.627624886	1.822438792	5.324%

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Table 11 - Profitability Statistics of Mid-Cap Companies for the selected time period

Mid-Cap Pharma Companies - Net Profit Margin			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Aurobindo Pharma	0.159	0.028	17.28%
Glenmark Pharmaceuticals	0.272	0.160	58.75%
Laurus Labs	0.108	0.054	49.92%

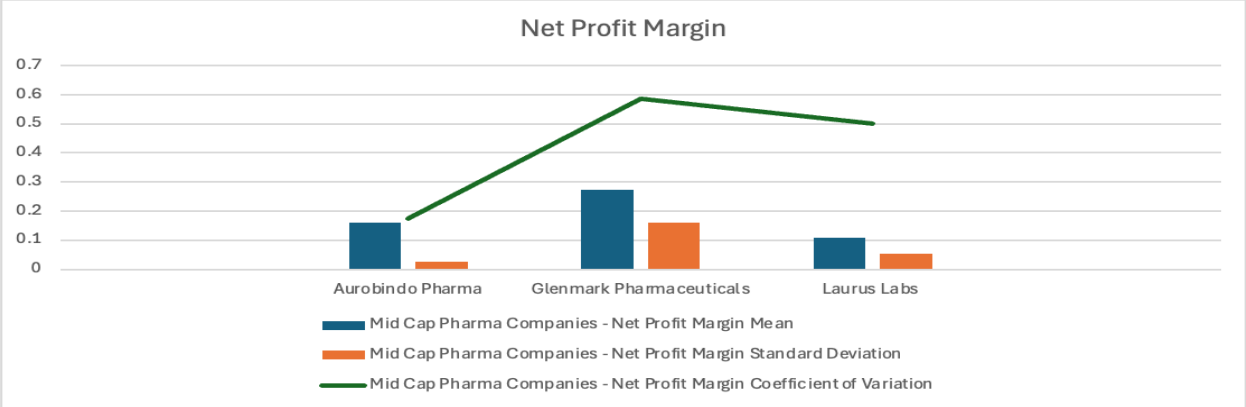

Figure 5 - Statistics of Profitability of Mid-Cap Pharma Companies

Inference - Glenmark Pharmaceuticals has the highest mean but its C.V. and S.D. are also high over the study period suggesting that the high profitability comes along with significantly higher risk. Aurobindo Pharma provides consistently moderate profits and could be a better choice for risk-averse investors. Laurus Labs has the least profitability over the study period with a high C.V hence it might not be the best choice for investors solely based on profitability.

Table 12 - Efficiency Statistics of Large Cap Companies for the selected time period

Mid-Cap Pharma Companies - Asset Turnover			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Aurobindo Pharma	0.589	0.145	24.53%
Glenmark Pharmaceuticals	0.375	0.083	22.23%
Laurus Labs	0.728	0.077	10.61%

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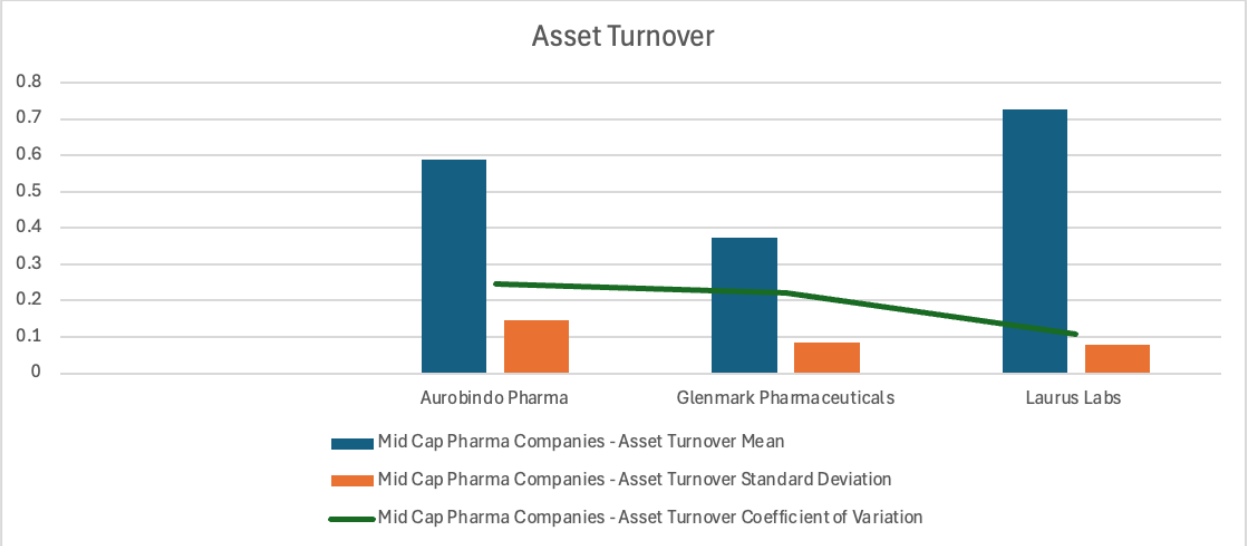

Figure 6 - Statistics of Efficiency of Mid-Cap Pharma Companies

Inference - Laurus Labs demonstrates the best asset efficiency (highest mean) and consistent performance (lowest CV and standard deviation). It is the top choice for investors or analysts prioritizing operational efficiency and reliability. Glenmark's low asset turnover and moderate consistency place it behind the other two. It may not be the best choice for maximizing operational efficiency or stability. Aurobindo Pharma has a solid mean asset turnover, but its higher variability suggests inconsistency.

Table 13 - Statistics of Financial Leverage of Mid-Cap Companies for the selected time period

Mid-Cap Pharma Companies - Equity Multiplier			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Aurobindo Pharma	1.451	0.131	9.03%
Glenmark Pharmaceuticals	1.394	0.091	6.54%
Laurus Labs	1.958	0.130	6.65%

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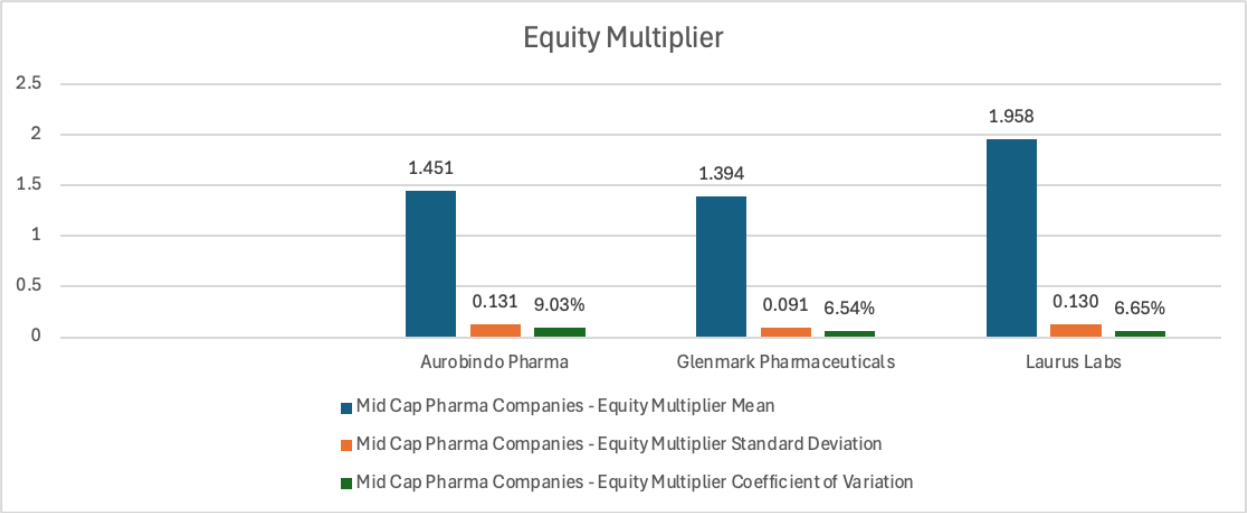

Figure 7 - Statistics of Financial Leverage of Mid-Cap Pharma Companies

Inference - Equity is generally stable given the changes in equity only happen due to changes in reserves of the company. Hence using C.V. as well as S.D. to analyze the stability may not be the best method. Glenmark Pharmaceuticals has the lowest mean leverage hence the least financial risk and the most consistent performance with the lowest CV. Laurus Labs has the highest leverage indicating higher financial risk, but also maintains a strong consistency with a low CV.

Table 14 - Statistics of ROE of Mid Cap Companies for the selected time period

Mid-Cap Pharma Companies - ROE			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Aurobindo Pharma	13.88%	5.15%	37.15%
Glenmark Pharmaceuticals	13.58%	5.90%	43.43%
Laurus Labs	16.04%	9.67%	60.28%

Inference - Aurobindo Pharma is the best for stability. It offers consistent returns as shown by the lowest CV and a decent ROE of 13.88%, making it ideal for risk-averse investors. Laurus Labs stands out with the highest mean ROE, but it comes with significant variability as it has the highest variability. It's suitable for aggressive investors seeking higher returns despite the risk. Glenmark Pharmaceuticals is a moderate option between the 2.

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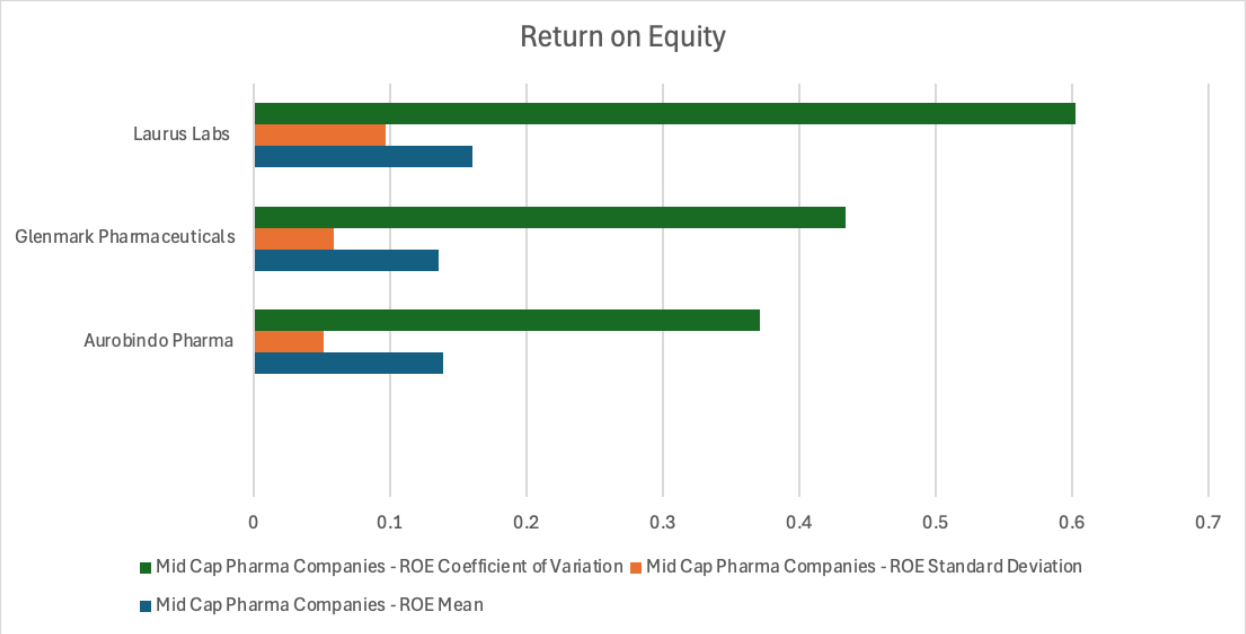

Figure 8 - Statistics of ROE of Mid-Cap Pharma Companies

Analysis of Small Cap Pharma Stocks

Table 15 - DuPont Breakdown for Natco Pharma from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.252808989	0.834256498	1.380588235	29.118%
2017-2018	0.333811573	0.559689507	1.19552	22.336%
2018-2019	0.335850957	0.455922865	1.222565254	18.720%
2019-2020	0.264804469	0.385194749	1.201085552	12.251%
2020-2021	0.187424426	0.348063973	1.161574187	7.578%
2021-2022	0.07861991	0.355162716	1.187783345	3.317%
2022-2023	0.270948533	0.436340015	1.145895364	13.547%
2023-2024	0.366209022	0.544552945	1.172031474	23.373%

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Table 16 - DuPont Breakdown for Morepen Labs from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.041970803	1	2.446428571	10.268%
2017-2018	0.046345811	0.949238579	2.354581673	10.359%
2018-2019	0.040446304	1.158319871	2.226618705	10.432%
2019-2020	0.04040404	1.196374622	2.156351792	10.423%
2020-2021	0.084532374	1.311320755	1.905617978	21.124%
2021-2022	0.069703244	1.402710552	1.724540902	16.861%
2022-2023	0.034353996	1.210669078	1.417948718	5.897%
2023-2024	0.072171651	1.202501955	1.438695163	12.486%

Table 17 - DuPont Breakdown for Granuels India from 2016-17 to 2023-24

Financial Year	Net Profit Margin = Net Income / Revenue	Asset Turnover = Revenue / Total Assets	Equity Multiplier = Total Assets / Equity	ROE (%)
2016-2017	0.116938342	0.750931346	2.078539823	18.252%
2017-2018	0.078931751	0.631086142	2.047546012	10.199%
2018-2019	0.10355419	0.765021819	1.948332243	15.435%
2019-2020	0.128895729	0.806391561	1.748779164	18.177%
2020-2021	0.169549104	0.872071102	1.707911684	25.253%
2021-2022	0.109694555	0.834441489	1.744105141	15.964%
2022-2023	0.114583333	0.920252906	1.729453263	18.236%
2023-2024	0.08988016	0.819570753	1.704806202	12.558%

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Table 18 - Profitability Statistics of Small Cap Companies for the selected time period

Small Cap Pharma Companies - Net Profit Margin			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Natco Pharma	0.261	0.093	35.67%
Morepen Labs	0.054	0.019	34.93%
Granuels India	0.114	0.027	24.04%

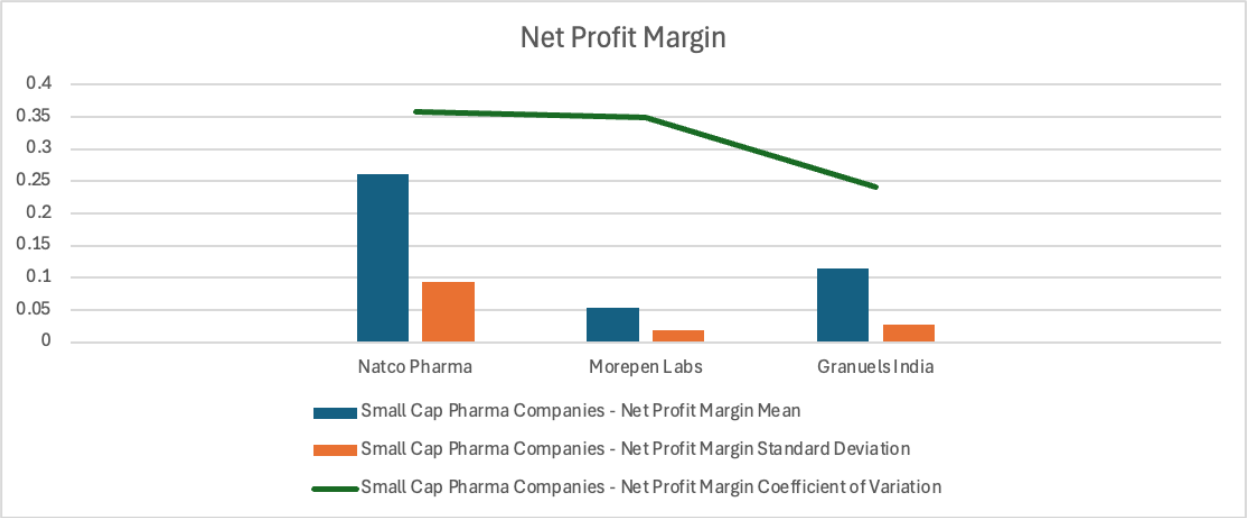

Figure 9 - Profitability Statistics of Small-Cap Pharma Companies

Inference - Granules India has the lowest Coefficient of Variation (24.04%), indicating the most consistent net profit margin among the three companies alongside a moderate mean. Natco Pharma despite having the highest mean also has the highest C.V., hence despite the higher profitability there is also more risk. Morepen Labs has more risk with the lowest profitability therefore it is ranked last in profitability among the class.

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Table 19 - Efficiency Statistics of Small Cap Companies for the selected time period

Small Cap Pharma Companies - Asset Turnover			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Natco Pharma	0.490	0.160	32.71%
Morepen Labs	1.179	0.149	12.61%
Granuels India	0.800	0.087	10.92%

Inference - Natco Pharma has the lowest asset turnover (0.490) and the highest fluctuation (32.71%), indicating inefficiency and instability. Morepen Labs leads with the highest asset turnover (1.179) and reasonable stability (12.61%). Granules India balances moderate efficiency (0.800) with the best stability (10.92%), making it the most consistent performer.

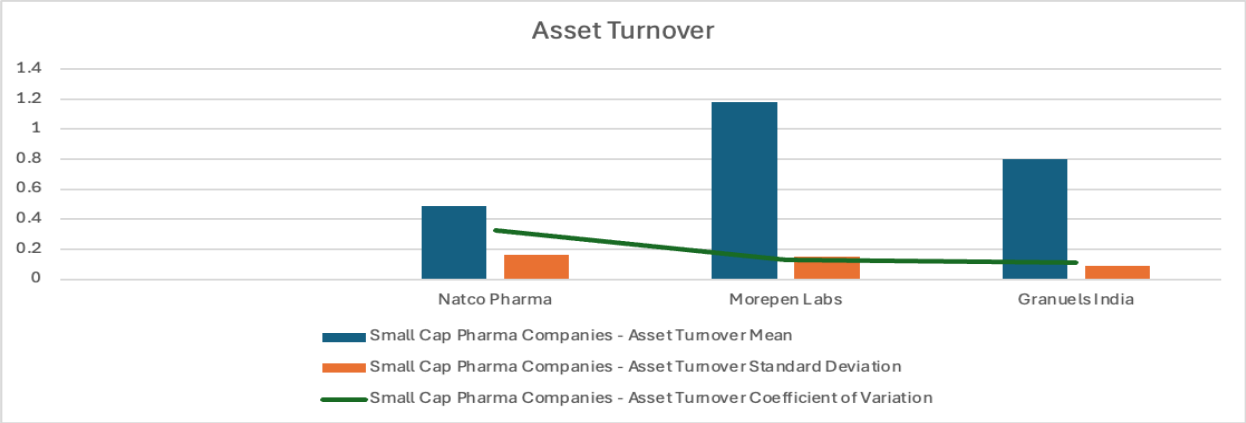

Figure 10 - Efficiency Statistics of Small-Cap Pharma Companies

Table 20 - Financial Leverage Statistics of Small Cap Companies for the selected time period

Small Cap Pharma Companies - Equity Multiplier			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Natco Pharma	1.208	0.074	6.09%
Morepen Labs	1.959	0.401	20.47%
Granuels India	1.839	0.159	8.65%

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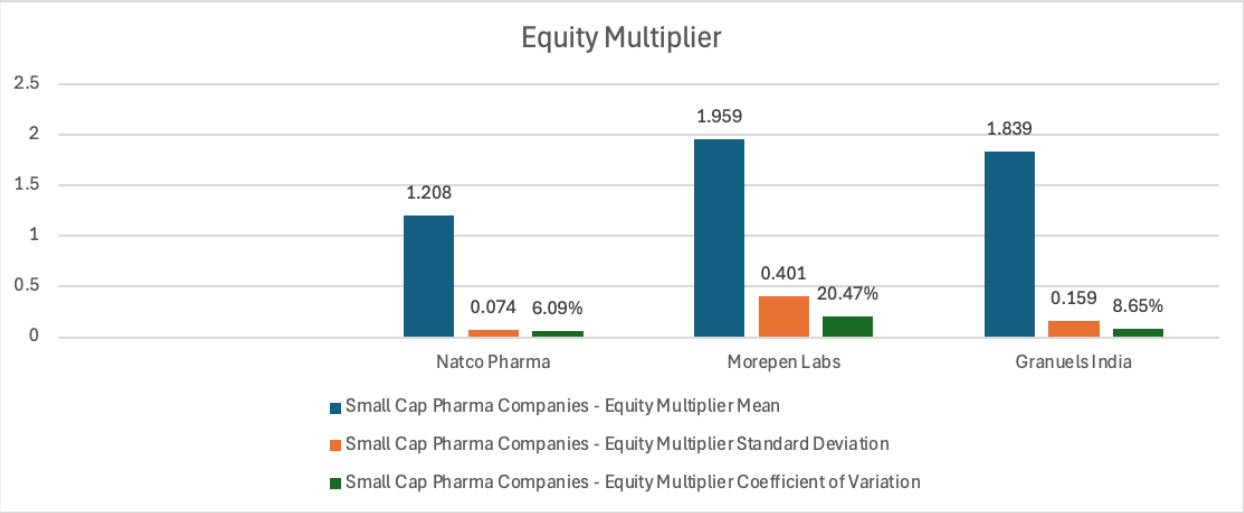

Figure 11 - Financial Leverage Statistics of Small-Cap Pharma Companies

Inference - Natco Pharma has the lowest equity multiplier but stands out for its exceptional stability having the lowest CV. Morepen Labs leads with the highest mean equity multiplier, indicating higher financial leverage, but it comes with significant fluctuation. Granules India offers a strong equity multiplier with better stability compared to Morepen Labs, making it a more consistent performer.

Table 21 - Statistics of ROE of Small Cap Companies for the selected time period

Small Cap Pharma Companies - ROE			
Company Name	**Mean**	**Standard Deviation**	**Coefficient of Variation**
Natco Pharma	16.28%	8.66%	37.15%
Morepen Labs	12.23%	4.70%	43.43%
Granuels India	16.76%	4.50%	60.28%

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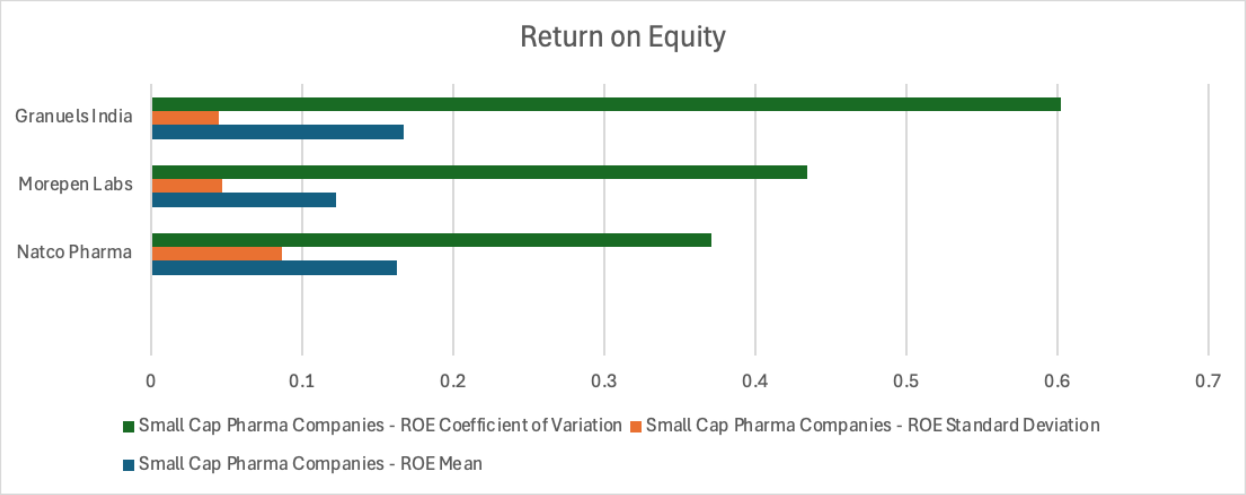

Figure 12 - Statistics of ROE of Small-Cap Pharma Companies

Inference - Natco Pharma has a high ROE with moderate variability reflecting decent profitability with some fluctuation. Morepen Labs has the lowest mean ROE but shows better stability than Granules India. Granules India leads in ROE but has the highest variability, indicating significant inconsistency despite strong returns.

RANKING OF THE SELECTED COMPANIES BASED ON THE STUDY

Table 22 - Ranking for Net Profitability of Selected Pharmaceutical Stocks

Rank	Large Cap	Mid Cap	Small Cap
1	Dr. Reddy's	Glenmark	Natco Pharma
2	Zydus	Aurobindo Pharma	Granules India
3	Sun Pharma	Laurus Labs	Morepen Labs

Table 23 - Ranking for Efficiency of Selected Pharmaceutical Stocks

Rank	Large Cap	Mid Cap	Small Cap
1	Dr. Reddy's	Laurus Labs	Morepen Labs
2	Zydus	Aurobindo Pharma	Granules India
3	Sun Pharma	Glenmark	Natco Pharma

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Table 24 - Ranking for Financial Leverage of Selected Pharmaceutical Stocks

Rank	Large Cap	Mid Cap	Small Cap
1	Sun Pharma	Glenmark	Natco Pharma
2	Dr. Reddy's	Laurus Labs	Granules India
3	Zydus	Aurobindo Pharma	Morepen Labs

Table 25 - Ranking for ROE of Selected Pharmaceutical Stocks

Rank	Large Cap	Mid Cap	Small Cap
1	Zydus	Glenmark	Natco Pharma
2	Dr. Reddy's	Laurus Labs	Granules India
3	Sun Pharma	Aurobindo Pharma	Morepen Labs

CONCLUSION

This study analyzed the pharmaceutical sector using DuPont analysis to evaluate the financial performance of selected large, medium, and small-scale stocks. Time series data from the financial year ending 2017 to the financial year ending 2024 was taken from secondary sources, such as a screener, to be examined. The study provided insights into these companies' profitability, operational efficiency, financial leverage, and overall return on equity (ROE).

Among large-cap companies, Dr. Reddy's and Zydus emerged as strong performers due to their balance of profitability and efficiency, making them attractive options for investors seeking stable and moderate-risk opportunities. However, Sun Pharma's higher variability in key metrics suggests potential challenges that require further investigation.

Mid-cap companies displayed a mixed performance. Glenmark and Laurus Labs stood out for their operational efficiency, with Glenmark demonstrating higher profitability despite some variability and Laurus Labs showed consistent efficiency but higher financial leverage, indicating potential risks. Aurobindo Pharma showed moderate performance, balancing profitability with stability.

Small-cap stocks revealed distinct dynamics, with Natco Pharma and Granules India delivering balanced performance across metrics. Natco Pharma exhibited strong profitability, while Granules India demonstrated consistent operational efficiency. Morepen Labs showed high asset turnover, signalling the potential for high returns, but its variability in other metrics suggests higher associated risks.

The DuPont framework helps in dissecting the components of ROE and understanding how profitability, efficiency, and leverage contribute to the financial performance of these stocks. The analysis highlighted the trade-offs between stability and risk across market capitalization tiers, offering investors a clear perspective on the strengths and weaknesses of stocks of each category.

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