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An Impact of Capital Structure on Financial Performance of Selected Pharmaceuticals & Drugs Companies in India

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Abstract: Capital structure is one of the financial decisions while financial performance is essential components of business decisions and growth. This research paper focused to find out impact of capital structure on financial performance for two pharmaceutical and drug companies as samples for five years from 2020 to 2024. Sun pharma ltd. and Torrent pharma ltd. are two samples for research study. Ratio analysis tool is aid to determine capital structure and financial performance, to determine capital structure researcher used ratio of debt-equity while to determine financial performance net profit ratio, return on capital employed, return on equity and return on asset ratios used. Debt-equity ratio is used as independent variable and other financial performance measure ratios are dependent variables. Statistical tool, regression analysis is used to determine impact of variables and correlation is used to find relationship between variables. Study revealed that there is insignificant impact among variables of the study. Research study helps to take necessary decisions on capital structure as well as financial performance, it also use for further research study.

Key Words: Capital structure, financial performance, debt to equity ratio, return on capital employed, return on equity, return on asset and regression analysis

1. Introduction

In this business world, capital structure is one of the major decisions and a well-known topic for various research study and widely used by firms and industries. It creates trust and shows effective management of company. It shows various securities or fund in proper manner. Capital structure is a well maintain balanced combination of internal and external fund that borrowed by firm to operate business activities. Basically, funds are grouped into two categories: equity(owner's) fund and debt (borrowed) fund. When any firm think about capital structure, the company primarily focused on cost of capital that arise from acquire of fund. Now a days it is essential to consider cost and other factors. Financial performance is an indicator of company's financial condition. Stakeholders can take decisions through analysing financial performance. Inter-company and intra company financial performance can be possible, through comparison company can take reliable decision for company future.

2. Review of Literature

Various researchers have significantly worked on the same research topics. Researcher has reviewed books, articles and other online materials that used for research topic.

Reddy & Tabassum (2024), examined impact of capital structure on financial peformance of selected commercial bank and for measuring capital structure they used debt to equity ratio. Researcher used various ratios like net profit margin, return on capital employed, return on equity and net interest margin ratios to measure financial performance with five selcted banks. Statistical tool, regression anlaysis and ANOVA used for study. The result reveals positive correlation and relationship between among financial ratios.

Bendjazia (2023), examined how capital structure impacted on firm's performance and its value. Researcher used multiple regression on a selected ten pharma company listed in financial time stock exchange, london from 2016 to 2021. After applying tools, it was foun that there is favourable correlation between gearing anfd firm's performanc of selected ten samples.

Mehta (2021), surveyed listed company on Nifty 50 Index in India with ten year data from 2011 to 2020. Researcher used correlation and regression analysis to found impact of variables of selected samples. To measure capital structure researcher used ratio anaylysi tool is used. Result showed after applying tool that there is negative relation among selected variables.

Prasad (2019), study on small finance bank of two years from 2017 and 2018 of eight selected banks. Debt to total asset and other ratios are used to measure capital structure while net interest margin and other profitability ratios to measure financial performance. Capital structure ratio are considered independent variable while profitability ratios are depdendent variable. Result revealed that there is significant impact among variables of the study.

Sunita (2018), analysed effect of capital structure on overall profitability: a study of Indian Bank. This paper focused on how capital structure impacted on selected banking companies. She used multivariate regression analysis of selceted twenty samples and tenure of 2012 to 2017. The results disclosed that capital structure is negatively correlatd with overall profitability of selected samples.

Das & Swain (2018), studies fifty top manufacturing companies about capital structures by using annual reports. Multicollinearity test and regression analysis used to determine impact of variables. The results of study declared that there is a significant relationship between capital structure variables and profitability variables.

Chadha & Sharma (2015), empirical study which focused on capital strcutre as a base of the study abd finacial performance with evidence from India from selected 422 listed BSE manufacturing companies. Researchers had taken 10 years data from 2003-2004 to 2012-2013 finanical years. Study concluded with out comes showed that financial leverage has insignificant impact on firms financial perfromances of selected samples.

M.Sree Lakshmi (2013), scrutinized 100 BSE listed manufacturing companies based on one of the essential business decision capital structure and also focused on its impact on company's from 2014 to 2021. Correlation and regression analysis is measured to study impact of variables. Outcomes of the study mentioned that there is insignificant or adversely connected with one another variables.

3. Research Gap

It was found that a lot of work was done on different industries, including banking industries, IT industries, automobile industries, textile industries and many more. There are few studies founded that focused on researcher's topic that is capital structure which is focused on company's funds and financial performance analysis of pharmaceuticals and drug companies. In this current study focused into how capital structure affect the selected company's financial performance.

4. Objective of the Study

1. To examined the impact and relationship between variables of capital structure and financial performance of selected pharmaceutical and drug companies.

2. To determine proper capital structure that correlates with highest overall financial performance.

5. Research Methodology

5.1 Data Collection and Data Sampling Method

The current research study is based on secondary data collection mainly from annual report. Secondary data for study is the financial statements, which are income statements and balance sheet from the sample pharmaceutical companies. In addition, researcher used other research papers, websites and books for reference of the study. Present study as per convenience sampling method to determine sample which mainly focused on market capitalization of companies.

5.2 Tools and Techniques

To determine results of the study ratio analysis and regression analysis were used. Here, ratios used to compare two or more variables and regression is basic tool to find impact of two variables. To find impact of variables Microsoft Excel computerised tool used by researcher has used. In regression analysis financial performance ratios are dependent variables while capital structure's ratio is independent variable of selected samples.

- Capital structure ratio = Debt to equity ratio
- Financial performance ratio = Net profit ratio, Return on capital employed, Return on equity and Return on asset

5.3 Hypothesis Framing

1. **H_0**: There is no significant impact of debt to equity on net profit margin of selected pharmaceutical and drug companies.
2. **H_0**: There is no significant impact of debt to equity on return on capital employed of selected pharmaceutical and drug companies.
3. **H_0**: There is no significant impact of debt to equity on return on equity of selected pharmaceutical and drug companies.
4. **H_0**: There is no significant impact of debt to equity on return on asset of selected pharmaceutical and drug companies.

5.4 Samples

Researcher has selected two pharmaceutical and drug companies based on top five highest market capitalization from listed companies in Bombay stock exchange.

Sr. No.	Name of company	Market Capitalization
1	Sun Pharma Limited	4.25 lakh crore
2	Torrent Pharma Limited	1.04 lakh crore

(Source: data taken from forbesindia.com and market capital as on November 19,2024)

6. Overview of variables

Sr. No.	Name of variables	Description	Formula
1	Debt to Equity Ratio	It used to determine relationship between borrowed capital and owner's capital. It will used to take decision regarding capital structure.	D/E = $\frac{Total\ Debt}{Total\ Shareholder's\ equity}$
2	Net Profit Margin Ratio	It is profitability ratio which used to determine relationship between profitability and sales.	NPR = $\frac{Net\ Profit}{Sales} \times 100$
3	Return on Capital Employed	It is ascertained through earnings before interest and tax divided by capital employed.	ROCE = $\frac{Earning\ Befrore\ interest\ and\ tax}{Capital\ Employed}$
4	Return on Equity	It is used to determine owner's fund decisions which is obtain by net profit items divided by equity or owner's fund.	ROE = $\frac{Net\ Income}{Shareholder'sEquity}$
5	Return on Asset	Return on asset is ascertained based on net profit divided by the total asset obtained from the balance sheet to determine proportion of asset over profit.	ROA = $\frac{Earning\ before\ interest\ and\ tax}{Average\ total\ asset}$

7. Data Analysis

Name of ratios	Sun Pharma Ltd.					Torrent Pharma Ltd.				
	2024	2023	2022	2021	2020	2024	2023	2022	2021	2020
Debt to Equity Ratio	0.47	0.32	0.20	0.26	0.24	0.49	0.71	0.53	0.73	0.76
Net Profit Margin Ratio	14.09	8.12	-0.64	16.71	25.62	15.90	13.66	14.7	17.63	15.21
Return on Capital Employed	12.15	15.79	8.20	8.15	13.45	23.64	19.81	19.50	18.53	18.20
Return on Equity	12.06	7.11	-0.40	8.54	13.16	19.87	16.28	15.62	18.86	18.32
Return on Asset	6.96	4.12	-0.24	5.48	8.36	10.96	8.16	8.88	9.67	7.89

(Source: moneycontrol.com)

In Sun Pharma limited debt to equity ratio shown upward trend except year 2022, it was highest in 2024 at 0.47 while in 2022 it was lowest at 0.20. Net profit margin ratio was highest in 2020 at 25.62 and it was negative in 2022 -0.64. Return on capital employed was 8.15 very low in march 2021 while it was highest in 2023 at 15.79. Return on equity in march 2020 highest at 13.16 while it was negative in march 2022 at -0.40. Return on asset ratio shows highest in march 2020 while in the year 2022 it was negative -0.24. There is observed that in 2022 year all ratios showed low compare to other four years which shows on that year sun pharma company faces some challenges or crisis.

In Torrent pharma ltd. debt to equity ratio shows more fluctuate trend, it was highest in the year 2022 at 0.76 while in march 2024 it was 0.49 which is lower from selected years. Net profit margin ratio was lowest in march 2023 13.66 while it was highest in march 2021, 17.63. Return on capital employed was 18.20 in march 2020 while it was highest in march 2024 23.64 that shows increasing trend and company focused to provide more return on invested capital. Return on equity shown lower in march 2022 i.e. 15.62 while it was highest in year 19.87 in march 2024. Return on asset ratio was lowest in march 2023 i.e. 8.16 while in march 2024 it was highest 10.96. overall financial performance is rapidly upward trend showed for torrent pharma ltd.

8. Regression Model:

Regression model is used to determine relationship between dependent variable on independent variables. Below mentioned model will use to determine impact of capital structure on financial performance of selected samples for research study.

Model-1	Model-2	Model-3	Model-4
NPR = a + b D/E	ROCE = a + b D/E	ROE = a + b D/E	ROA = a + b D/E

Table-1: Model-1 Correlation and Regression Results of debt to equity on net profit margin ratio

Regression Statistics	Sun Pharma Ltd.	Torrent Pharma Ltd.
Multiple R	0.131632	0.078279
R Square	0.017327	0.006128
Adjusted R Square	-0.31023	-0.32516
Standard Error	11.21291	1.704976
Observations	5	5

Name of Company		Coefficients	Standard Error	t Stat	P-value
Sun Pharma Ltd.	Intercept	9.136066	16.61817	0.549764	0.620763
	X Variable 1	12.22797	53.16622	0.229995	0.832886
Torrent Pharma Ltd.	Intercept	14.81989	4.477935	3.309536	0.045408
	X Variable 1	0.931848	6.851771	0.136001	0.900434

Table-2: Model-2 Correlation and Regression Result of Debt to equity on return on capital employed

Regression Statistics	Sun Pharma Ltd.	Torrent Pharma Ltd.
Multiple R	0.385515	0.786613
R Square	0.148622	0.618761
Adjusted R Square	-0.13517	0.491681
Standard Error	3.562874	1.550438
Observations	5	5

Name of Company		Coefficients	Standard Error	t Stat	P-value
Sun Pharma Ltd.	Intercept	7.90487	5.280383	1.497026	0.231299
	X Variable 1	12.22527	16.89344	0.72367	0.521593
Torrent Pharma Ltd.	Intercept	28.79017	4.072056	7.070179	0.005818
	X Variable 1	-13.7487	6.230728	-2.2066	0.114464

Table-3: Model-3 Correlation and regression result of Debt to equity on return on equity

Regression Statistics	Sun Pharma Ltd.	Torrent Pharma Ltd.
Multiple R	0.523345	0.021504
R Square	0.27389	0.000462
Adjusted R Square	0.031854	-0.33272
Standard Error	5.269128	2.060365
Observations	5	5

Name of Company		Coefficients	Standard Error	t Stat	P-value
Sun Pharma Ltd.	Intercept	0.174087	7.809147	0.022293	0.983614
	X Variable 1	26.57689	24.98368	1.06377	0.365465
Torrent Pharma Ltd.	Intercept	17.98865	5.411325	3.32426	0.044911
	X Variable 1	-0.30846	8.279967	-0.03725	0.972623

Table-4: Model-4 Correlation and regression result of Debt to equity on return on asset

Regression Statistics	Sun Pharma Ltd.	Torrent Pharma Ltd.
Multiple R	0.444027	0.670456
R Square	0.19716	0.449512
Adjusted R Square	-0.07045	0.266015
Standard Error	3.414784	1.064887
Observations	5	5

Name of Company		Coefficients	Standard Error	t Stat	P-value
Sun Pharma Ltd.	Intercept	0.79455	5.060905	0.156998	0.885218
	X Variable 1	13.89748	16.19127	0.858332	0.453817
Torrent Pharma Ltd.	Intercept	13.42551	2.79681	4.800294	0.017205
	X Variable 1	-6.698	4.279451	-1.56515	0.215514

9.Hypothesis Testing

1. H_0: There is no significant impact of debt to equity on net profit margin ratio

Correlation of sun pharma ltd. of debt to equity on net profit margin ratio is 0.131 while regression indicated 0.017 and correlation of torrent pharma ltd of debt to equity on net profit margin ratio is 0.078 while regression is 0.006. The result showed that there is very low relation between debt to equity and net profit margin. There is insignificant impact of debt to equity on net profit margin ratio, alternate hypothesis is failed to accept for selected samples.

2.H_0: There is no significant impact of debt to equity on return on capital employed

Correlation of sun pharma ltd. of debt to equity on return on capital employed is 0.385 while regression showed 0.148 and for torrent pharma ltd. correlation is 0.786 and regression is 0.618. The result showed that there is moderate relation between debt to equity and return on capital employed. Compare to net profit ratio return on capital employed shows more relation. There is insignificant impact of debt to equity on return on capital employed, alternate hypothesis is failed to accept for selected samples.

3.H_0: There is no significant impact of debt to equity on return on equity

Correlation of debt to equity on return on equity of sun pharma ltd.0.523 and for torrent pharma ltd. 0.021. Result of regression of sun pharma ltd.0.273 and for torrent ltd. 0.000. The results showed that there is almost nil relation between debt to equity on return on equity for torrent ltd. while for sun pharma very low relation of selected variables. There is insignificant impact of debt to equity on return on equity, alternate hypothesis is failed to accept for selected samples.

4.H0: There is no significant impact of debt to equity on return on asset

Correlation of debt to equity on return on asset of sun pharma ltd. is 0.444 and for torrent ltd. it is 0.670. Regression result of sun pharma ltd. is 0.197 and for torrent ltd. 0.449. The results showed that there is very low positive relation between debt to equity on return on asset for selected both samples. There is insignificant impact of debt to equity on return on asset, alternate hypothesis is failed to accept for selected samples.

10. Findings and Conclusion

Capital structure is essential financial decision for business entities and it is important measure to take financial decisions of financial performance of firm. Stakeholders want to know about financial performance, so they can take reliable decision of their investment or funds. Researcher tried to find impact of capital structure on financial performance for selected two pharmaceutical and drug companies through measuring ratio and statistical tools. Finally, it is concluded that for selected samples there is insignificant impact of overall capital structure on financial performances. There is research scope for other researcher to work on this topic because there are so many other factors like samples, time duration, proportion of funds are differed from one firm to another firm.

11. Reference

- Bendjazia, N. (2023). *Does the capital structure impact the company performance:empirical research of the effect of financing decisions on a company's profitability? evidence from the UK pharmaceutical and biotechnology sector.* University of Wales Trinity Saint David.
- Chadha, S., & Sharma, A. K. (2015). Capital structure and firm performance: Empirical evidence from India. *SAGE Publications*, 295-302.
- Das, C. P., & Swain, R. (2018). INFLUENCE OF CAPITAL STRUCTURE ON FINANCIAL PERFORMANCE. *Parikalpana - KIIT Journal of Management*, 161-170.
- Khan, M. Y., & Jain, P. K. (1995). *Financial Management Text and Problems* (Second ed.). New Delhi: Tata McGraw-Hill Publishing Company Limited.
- M.Sree Lakshmi. (2013). Capital structure and its impact on financial performance in India - A Study. *International Journal of Creative Research Thoughts*, 925-934.
- Mehta, P. (2021). Impact of capital structure on profitability of companies listed on Nifty 50 Index in India. *A Global Journal of Interdisciplinary Studies*, 112-119.
- Prasad, V. (2019). Impact of capital structure on financial performance of small finance banks. *International journal of research in business studies and management*, 29-35.
- Reddy, V., & Tabassum . (2024). IMPACT OF CAPITAL STRUCTURE ON FINANCIAL PERFORMANCE OF SELECTED COMMERCIAL BANKS. *Journal of Emerging Technologies and Innovative Research (JETIR)* , 53-58.

- Sunita. (2018). Effect of Capital Structure on Overall Profitability: A Study of Indian Banks. *Amity Management Analyst*, 33-42.
- www.moneycontrol.com
- www.forbesindia.com