

A Study on Pattern of Financing and Financial Performance of Select FDI Companies of Pharmaceutical Industry in India

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Abstract: A company's financial performance is determined by how well its debt and equity components blend into its overall financing strategy. Debt and Equity portions influences the performance of companies in terms of utilisation of funds, maximum generation of returns ,and wealth maximisation. In the process of maximisation of profits and wealth, Foreign Direct Investment (FDI) also plays a role. 7 FDI's accepted companies of Indian pharmaceutical industry are considered for the study using data at business level. The current study has addressed the relationship between Pattern of Financing and Financial Performance of seven FDI-based firms in the Indian pharmaceutical industry. The study period is 2010 –2021, and the sample consists of seven FDI–accepting enterprises from the Indian pharmaceutical sector. Regression technique has been used to investigate the influence of financing patterns on the financial performance seven FDI-based companies. The study results reveal that there is no association between profitability and the debt/equity ratio & LTD/ TA of select FDI companies in the industry. The financing patterns do not have any effect on financial performance of select FDI firms of pharmaceutical industry in India.

Keywords: Debt/ Equity Ratio, FDI, LTD/TA, Pharmaceutical industry, Utilisation of funds, Wealth maximisation.

I. INTRODUCTION

1.1 Foreign Direct Investment (FDI)

For India's economic development, FDI (Foreign Direct Investment) serves as a key engine of economic growth and a non-debt funding source. Foreign direct investment is more than just money flows between nations. Along with being a substantial contributor to economic growth, FDI also brings with it new managerial skills, technology, infrastructure, and job possibilities. (Samuel O. Okafor, Kenneth Jegbefumwen, and Patricia N. Okafor, 2016) [1]. Since the liberalisation phase, the FDI policy has undergone significant adjustments. In the vast majority of its industries around the world, India has emerged as one of the most well-known and well-liked investment locations. India has become one of the most attractive countries for foreign direct investment (FDI) due to its constantly expanding markets, liberalisation of trade policy, relaxation of numerous foreign investment barriers, and improvements in technology and telecommunications. (Sudha Vepa, 2013)[2].

FDI's are allowed 100 percent in Indian pharmaceutical industry under automatic route in greenfield pharmaceuticals and 74 percent in brownfield pharmaceuticals (RBI, Press Note NO. 4 (2001 Series). The most highly advanced and scientifically based sector of the Indian economy is the pharmaceutical industry. In terms of product quality, technological innovation, and the quantity of medications produced, the pharmaceutical industry in India comes in third place. The Indian pharmaceutical industry has more than 20,000 registered units. It has expanded tremendously during the previous two decades. (Mohit Mangla and Bhupinder Singh Sekhon, 2013) [3].

According to the Economic Survey, FDI in the Indian pharmaceutical business experienced a strong expansion in the years 2020–21, driven mostly by investments made to fulfil COVID–19 allied demand for treatments and medications. FDI inflows are essential for compounding local capital, promoting industrial growth, and creating jobs in a variety of sectors and industries. In total, India got USD 54.1 billion in FDI between April and November 2021–2022.

1.2 Financing Patterns and Financial Performance

The way of funding a project, or financing patterns, is a sign of the capital structure of the particular project within an organisation, which displays how the financial components are divided. The capital structure, also referred to as the company's long-term financing mix, is made up of a mix of equity and debt, including preferred shares. Any company that wants to maximise profits for all of its stakeholders and strengthen its capacity to compete in a fierce market must carefully analyse its capital structure. The objective of financial managers is to pinpoint a certain combination that will raise the company's profitability and market value. (Narinder Pal Singh and Mahima Bagga, 2019)[4]. The financial resources that a firm employs for its key activities and different kinds of securities are internal funds and external funds. Every kind of financing, whether internal or external, has a cost, so the firm must select the best source of funding, especially in times of competition because the choice affects the company's value and profitability. (Ashok Kumar Panigrahi¹, Suman Kalyan Chaudhury, Kirti Ranjan Swain, 2021)[5].

II. LITERATURE REVIEW

Trapti Mittal and Pankaj Madan, (2020), This study aims to pinpoint the factors that determine e-startup financing patterns and how they affect their commercial performance. Various traditional and contemporary sources of funding, stages of development such as seed, early, growth, and later stage, and the determinants of business performance such as long-term debt, short-term debt, debt-equity ratio, liquidity, profitability, tangibility, entrepreneurs' age, education, and experience are all suggested in this theoretical paper to design a conceptual framework for financing patterns of e-startups[6]. **Niken Wahyu Cahyaningtyas and Harjum Muharam, (2022)**, This study's objective is to add to the body of literature on the variables influencing business performance. examining how a company's capital structure, which is a mediator of its financial performance, affects factors including size, liquidity, and asset structure. Companies who sell food and beverages that are listed on the Indonesia Stock Exchange participated in the quantitative research (IDX). The sample includes financial information for the 2014–2019 period from 15 food and beverage enterprises. The findings revealed higher rates, liquidity ratios, and asset structures for the food and beverage companies listed on the Indonesia Stock Exchange (IDX), which support the firm level [7]. **Michael Nana Owusu, Joseph Asare, Emmanuel Atta Kumah, and Stephen Owusu Afriyie,(2022)**, This study aims to evaluate the relationship between the consumer staples industry in Ghana and stock price and capital structure. Excel and SPSS were used to examine the stock prices, equity values, debt values, market capitalization, and earnings per share of the listed consumer staple sector companies that were collected from GSE. The findings showed that, between 2011 and 2019, the companies' mean equity values were higher than their mean debt values. The

correlation research also indicated a weak connection between stock price and capital structure. According to the fitted regression models, capital structure is not a factor in predicting stock price. The study also found that the companies face some difficulties as a result of swings in stock price and financial structure. The study found that because the capital structure has a tenuous relationship with stock price, companies in the consumer staples industry must pay close attention to it [8]. **Anshu Handoo A, Kapil Sharma, (2014)**, between 2001 and 2010 examined the elements influencing the capital structure of 870 commercial and state businesses. It is found that a variety of factors affect the organization's capital structure [9]. **Nassar S, (2016)**, The investigated that how capital structure affects the financial firm performance of Turkish industrial enterprises. For this study, which spans the eight-year period from 2005 to 2012, the annual financial statements of 136 industrial enterprises listed on the Istanbul Stock Exchange (ISE) were utilised. In order to investigate the connection between capital structure and firm performance, a multivariate regression analysis is used. Use metrics like Return on Asset (ROA), Return on Equity (ROE), Earnings per Share (EPS), and Debt Ratio (DR) as a capital structure variable to assess a company's performance. The findings indicate a considerable negative correlation between capital structure and company performance [10]. **S. Saravaran and V.Devaki Nandini, (2015)**, this study analysed the connection between capital structure and its effect on profitability in the 12 paper industries in India that were chosen specifically for the ten-year period from 2003–2004 to 2012–2013. Twelve Selecting high-performing businesses from the database that have continuous data is taken into account for examination. The criteria for choosing the companies were based on which company had the best performance as measured by its Net Sales contributing more than 150 crores. The highest to lowest level of sales are used to calculate the average sales for the paper industries for the years 2003–2004 and 2012–2013. The information was gathered from secondary sources. data gathering from annual reports, manuals, and other pertinent papers of the company[11]. **G.D.V. Kusuma, (2018)**, The capital structure of My Home Industries Ltd. is being attempted to be presented in the current paper. The author of this work attempted to examine the capital structure by taking into account various factors, including debt and equity. The debt to equity ratio indicates that the company used more debt to raise money. In the year 2014–15, the debt equity ratio climbed from about 1.24 times to 1.92 times, which is not a positive sign for the company [12].

III. STUDY OBJECTIVES

- To examine the relationship between the financing patterns and financial performance of a few FDI-based companies in the Indian pharmaceutical sector.

- To ascertain how financing patterns affects the profitability of a few FDI-based companies in the Indian pharmaceutical sector.

3.1 Study Hypothesis

Following are the hypothesis framed in this study

H01: There is no relationship between Total Outside Liabilities/ Total Assets Ratio and financial performance of a selected FDI based companies.

H02: There is no relationship between Debt / Equity Ratio and financial performance of a selected FDI based companies.

IV. DATA RESEARCH METHODOLOGY

4.1 Sample and Data Collection

According to CMIE- Prowess data resource, based on the presence of foreign investment, 17 firms are identified as FDI based companies in Indian Pharmaceutical industry, from this based on the size of the sales and availability of data 7 companies were chosen for the analysis. The study was conducted from the period 2010-2011 to 2020-2021 (11 years). This study uses secondary data from the PROWESS Database(Prowess IQ, 1.96), which is run by the Center for Monitoring Indian Economy (CMIE).

4.1.1 Sample Companies

Table-1- Sample Companies

| S.No. | Name of the Company |
|-------|--------------------------------------|
| 1 | Abbott India Ltd. |
| 2 | Biocon Ltd. |
| 3 | Cipla Ltd. |
| 4 | Glaxosmithkline Pharmaceuticals Ltd. |
| 5 | Pfizer Ltd. |
| 6 | Procter & Gamble Health Ltd. |
| 7 | Sanofi India Ltd. |

4.2 Profitability Measures

This study included six profitability indicators (Dependent Variables), following are the measures of profitability:

- Operating Profit (OP)
- Net Profit Margin (NP)
- Return on Total Assets (ROTA)
- Return on Total Income (ROTI)

The company's overall profit, which consists of sales and costs minus tax and interest-related expenses, is quantified by operating profit. Variables such as net profit have been used to gauge a company's profitability. The ratio used to determine return on total assets (ROTA). is profit after tax to total assets (PAT/TA) Since profit after tax is net of depreciation and represents profit after charging all expenses and provisions, it has been taken into account

when computing total assets. Profit After Tax to Total Income (PAT/Total Income) is the ratio used to calculate Return on Total Income (ROTI).

4.3 Measures of Capital Structure

Two capital structure measures (independent variables) were employed based on the previous studies:

- Total Outside Liabilities / Total Assets (TOL / TA)
- Debt /Equity (D / E)

Total Outside Liabilities/Total Assets (TOL/TA), a ratio, is used to calculate capital structure. Stock leverage is determined by the ratio of total liabilities to total assets. The debt-to-equity element of the debt-to-capital ratio measures the proportion of debt and equity as a share of the total capital of the company.

4.4 Methodology

Regression analysis is used to look at how the financial structure of FDI firms in the Indian pharmaceutical industry affects performance. The effect of financing practises on the profitability of FDI enterprises in the Indian pharmaceutical industry has been investigated using a multiple regression model. For this model, a threshold of significance of 5% is taken into account.

4.4.1 Mathematical Formula:

$$Y = \alpha + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \dots + \beta_n \chi_n + \epsilon$$

Y = Dependent Variable value (Y)

α = Constant

$\beta_1, \beta_2, \beta_3, \dots, \beta_n$ are the independent variable's coefficients.

$\chi_1, \chi_2, \chi_3, \dots, \chi_n$ considered as independent variables which are describing the value of 'Y'

ϵ = Error term.

V. ANALYSIS AND RESULTS

Results of Regression Analysis

5.1 Multiple Regression Results (Operating Margin: Dependent Variable):

Table-2, indicating that Glaxosmithkline Pharmaceuticals Ltd. with R² value of 0.912, which indicates that independent variables account for 91.2 percent of variability in the operating margin ratio. p- value of this company is less than 0.05. The results in Table-1 indicates that TOL/TA and Debt/Equity ratio of Glaxosmithkline Pharmaceuticals Ltd. have significant effect on the dependent variable operating margin. No other company except Glaxosmithkline Pharmaceuticals Ltd., has no significant relationship between financing patters and company performance as the p-value of TOL/TA and Debt/Equity ratio is greater than 0.05

Table-2 : Dependent Variable: Operating Margin

| Name of the Company | Independent Variables | R ² | Adjusted R ² | P-value |
|--------------------------------------|-----------------------|----------------|-------------------------|---------|
| Abbott India Ltd. | TOL/TA (%) | 0.9 | 0.868 | 0.016 |
| | Debt/ Equity ratio | 27 | | 0.134 |
| Biocon Ltd. | TOL/TA (%) | 0.8 | 0.772 | 0.146 |
| | Debt/ Equity ratio | 73 | | 0.224 |
| Cipla Ltd. | TOL/TA (%) | 0.5 | 0.234 | 0.509 |
| | Debt/ Equity ratio | 75 | | 0.151 |
| Glaxosmithkline Pharmaceuticals Ltd. | TOL/TA (%) | 0.9 | 0.842 | 0.023 |
| | Debt/ Equity ratio | 12 | | 0.04 |
| Pfizer Ltd. | TOL/TA (%) | 0.5 | 0.319 | 0.947 |
| | Debt/ Equity ratio | 92 | | 0.147 |
| Procter & Gamble Health Ltd. | TOL/TA (%) | 0.8 | 0.831 | 0.002 |
| | Debt/ Equity ratio | 91 | | 0.852 |
| Sanofi India Ltd. | TOL/TA (%) | 0.8 | 0.827 | 0.01 |
| | Debt/ Equity ratio | 85 | | 0.791 |

5.2 Multiple Regressions Results (Net Profit Margin: Dependent Variable)

Table-3, indicating that Procter & Gamble Health Ltd. with R² value of 0.932, which indicates that independent variables account for 93.2 percent of variability in the net profit margin ratio. p- value of this company is less than 0.05. The results in Table-2 indicates that TOL/TA and Debt/Equity ratio of Procter & Gamble Health Ltd. have significant effect on the dependent variable operating margin. No other company except Procter & Gamble Health Ltd., has significant relationship between financing patterns and company performance as the p-value of TOL/TA and Debt/Equity ratio is greater than 0.05

Table-3: Dependent Variable: Net Profit Margin

| Name of the Company | Independent Variable | R ² | Adjusted R ² | P-value |
|--------------------------------------|----------------------|----------------|-------------------------|---------|
| Abbott India Ltd. | TOL/TA (%) | 0.9 | 0.92 | 0.008 |
| | Debt/ Equity ratio | 56 | | 0.19 |
| Biocon Ltd. | TOL/TA (%) | 0.7 | 0.638 | 0.115 |
| | Debt/ Equity ratio | 99 | | 0.153 |
| Cipla Ltd. | TOL/TA (%) | 0.6 | 0.345 | 0.687 |
| | Debt/ Equity ratio | 36 | | 0.222 |
| Glaxosmithkline Pharmaceuticals Ltd. | TOL/TA (%) | 0.8 | 0.804 | 0.444 |

| | | | | |
|------------------------------|--------------------|-----|--------|-------|
| Pfizer Ltd. | Debt/ Equity ratio | | | 0.152 |
| | TOL/TA (%) | 0.3 | -0.068 | 0.557 |
| Procter & Gamble Health Ltd. | Debt/ Equity ratio | 59 | | 0.308 |
| | TOL/TA (%) | 0.9 | 0.899 | 0 |
| Sanofi India Ltd. | Debt/ Equity ratio | 32 | | 0 |
| | TOL/TA (%) | 0.6 | 0.472 | 0.367 |
| Sanofi India Ltd. | Debt/ Equity ratio | 48 | | 0.481 |

5.3 Multiple Regressions Results (Return on Total Assets: Dependent Variable)

Table-4, indicating that there is no significant impact of Return on Total Assets on the financial performance of Abbott India Ltd., Biocon Ltd., Cipla Ltd., Glaxosmithkline Pharmaceuticals Ltd., Pfizer Ltd., Procter & Gamble Health Ltd., and Sanofi India Ltd. as the p-values of independent variable of all the companies resulted greater than 0.05.

Table-4: Dependent Variable: Return on Total Assets(ROTA)

| Name of the Company | Independent Variable | R ² | Adjusted R ² | P-value |
|--------------------------------------|----------------------|----------------|-------------------------|---------|
| Abbott India Ltd. | TOL/TA (%) | 0.9 | 0.925 | 0.001 |
| | Debt/ Equity ratio | 58 | | 0.898 |
| Biocon Ltd. | TOL/TA (%) | 0.9 | 0.899 | 0.082 |
| | Debt/ Equity ratio | 44 | | 0.03 |
| Cipla Ltd. | TOL/TA (%) | 0.5 | 0.248 | 0.945 |
| | Debt/ Equity ratio | 82 | | 0.176 |
| Glaxosmithkline Pharmaceuticals Ltd. | TOL/TA (%) | 0.7 | 0.625 | 0.925 |
| | Debt/ Equity ratio | 91 | | 0.86 |
| Pfizer Ltd. | TOL/TA (%) | 0.2 | -0.245 | 0.999 |
| | Debt/ Equity ratio | 53 | | 0.318 |
| Procter & Gamble Health Ltd. | TOL/TA (%) | 0.7 | 0.669 | 0.006 |
| | Debt/ Equity ratio | 79 | | 0.207 |
| Sanofi India Ltd. | TOL/TA (%) | 0.1 | -0.221 | 0.594 |
| | Debt/ Equity ratio | 86 | | 0.586 |

5.4 Multiple Regressions Results (Return on Total Income: Dependent Variable)

Table-5, indicating that there is no significant impact of Return on Total Income on the financial performance of Abbott India Ltd., Biocon Ltd., Cipla Ltd., Glaxosmithkline Pharmaceuticals Ltd., Pfizer Ltd., Procter & Gamble Health Ltd., and Sanofi India Ltd., as the p-values of independent variable of all the companies resulted greater than 0.05.

Table-5: Dependent Variable: Return on Total Income(ROTI)

| Name of the Company | Independent Variable | R ² | Adjusted R ² | P-value |
|--------------------------------------|----------------------|----------------|-------------------------|---------|
| Abbott India Ltd. | TOL/TA (%) | 0.9 | 0.854 | 0.04 |
| | Debt/ Equity ratio | 19 | | 0.26 |
| Biocon Ltd. | TOL/TA (%) | 0.4 | -0.041 | 0.14 |
| | Debt/ Equity ratio | 22 | | 0.27 |
| Cipla Ltd. | TOL/TA (%) | 0.4 | 0.06 | 0.94 |
| | Debt/ Equity ratio | 78 | | 0.28 |
| Glaxosmithkline Pharmaceuticals Ltd. | TOL/TA (%) | 0.8 | 0.809 | 0.73 |
| | Debt/ Equity ratio | 94 | | 0.02 |
| Pfizer Ltd. | TOL/TA (%) | 0.4 | 0.042 | 0.91 |
| | Debt/ Equity ratio | 25 | | 0.56 |
| Procter & Gamble Health Ltd. | TOL/TA (%) | 0.3 | 0.012 | 0.21 |
| | Debt/ Equity ratio | 41 | | 0.60 |
| Sanofi India Ltd. | TOL/TA (%) | 0.2 | -0.112 | 0.62 |
| | Debt/ Equity ratio | 58 | | 0.73 |

VI. FINDINGS

Study results indicates that the patterns of financing indicator TOL/TA and Debt/Equity ratios have significant influence on profitability indicators in case of Glaxosmithkline Pharmaceuticals Ltd. and Procter & Gamble Health Ltd. only.

- Null hypothesis (H01) has been accepted as there is no notable impact of Total Outside Liabilities to Total Assets Ratio of a selected FDI based companies on its financial performance.
- Null hypothesis (H02) has been accepted as there is no notable impact of Debt/ Equity Ratio of selected FDI based companies on financial performance.

VII. CONCLUSION

Any business must carefully consider its capital structure because it affects the company's value and financial success. In this study, 7 foreign direct investment firms in the Indian pharmaceutical industry were selected to examine the association between patterns of financing and financial performance. From analysis results, it is possible to conclude that patterns of financing has a significant impact on financial performance of Glaxosmithkline Pharmaceuticals Ltd. and Procter & Gamble Health Ltd. companies whereas patterns of financing do not have significant impact on financial performance in case of Abbott India Ltd., Biocon Ltd., Cipla Ltd., Pfizer Ltd., and Sanofi India Ltd. These seven Pharmaceutical Foreign

Direct Investment based firms are preferring insider's funds than the outsider's funds in their financing patterns. In this study only seven FDI based (large scale) firms are considered; Therefore, it is recommended that future investigation studies may include more medium scale and small scale companies from the pharmaceutical industry and can be extended to other industries.

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