

# Determinants of Dividends in Indian Pharmaceutical Companies

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**Abstract-** Dividend is the portion of corporate profits paid out to stockholders. Dividend policy is influenced by various determinants of dividend. The payment of dividend is associated with profitability position of the firm and is influenced by internal and external factors. The Indian pharmaceutical industry currently tops the chart amongst India's science-based industries with wide ranging capabilities in the complex field of drug manufacture technology. The current study focuses on the determinants of dividends and its performance of select pharmaceutical companies in India. This study evaluates the performance of various pharmaceutical companies and their annual compound growth rate.

**Index Terms-** Dividend, Determinants, DPS, Growth rate

## I. INTRODUCTION

**D**ividends are payments made by a corporation to its shareholder members. When a corporation earns profit or surplus, that money can be put to two uses: it can either be re-invested in the business (called retained earnings), or it can be distributed to shareholders in the form of dividends. Investors seeking high current income and limited capital growth prefer companies with high Dividend payout ratio. However investors seeking capital growth may prefer lower payout ratio because capital gains are taxed at a lower rate. High growth firms in early life generally have low or zero payout ratios. As they mature, they tend to return more of the earnings back to investors. Determinants of dividends play a key role in the dividend policy and at dividend payout ratio. The main determinants of dividend policy of a firm can be classified into:

- a. Dividend payout ratio
- b. Stability of dividends
- c. Legal, contractual and internal constraints and restrictions
- d. Owner's considerations
- e. Capital market considerations and
- f. Inflation.

Dividend policy is concerned with taking a decision regarding paying cash dividend in the present or paying an increased dividend at a later stage. Annual compound growth rate (CAGR) is often used to describe the growth over a period of time of some element of the business. It is used to compare the growth rates of two investments.

## Review Literature

Muhammad Aamir and Syed Zullfiqar Ali Shah (2011) published an article "*Dividend Announcements and the Abnormal Stock Returns for the Event Firm and Its Rivals*" detailed the analysis of dividend announcement impact on stock prices. Benjamin M. Blau and Kathleen P. Fuller (2008) published an article "*Flexibility and dividends*" focused on model of corporate dividend policy based on the idea that management values Operating flexibility. Farzad Farsio, Amanda Geary, and Justin Moser (2004) published an article "*The relationship between dividends and earnings*" hypothesize that no significant relationship between earnings and dividend holds in the long run. Feldstein, Martin, and Jerry Green. (1983) published an article "Why do companies pay dividends" which mainly focuses on the reasons for issue of dividends. Ahmad H. Juma'h and Carlos J. Olivares Pacheco (2008) published an article "*The financial factors influencing cash dividend policy*" focuses on Internal and external factors that influence the decision of pay cash dividends. Merton H. Miller and Kevin Rock (2008) has published an article "*Dividend Policy under Asymmetric Information*" has concluded the model for dividend policy in case of asymmetric information.

## II. RESEARCH METHODOLOGY

The Present study is a study on selected companies to meet the specified objectives. The dividend can be determined by the internal and external factors. The independent variables like current year sales, current year interest, current year depreciation, current year provision for tax, current year net profit previous year net profit previous year dividend per share previous year retained earnings per share and current year liquidity ratio and dividend per share.

## III. NEED FOR THE STUDY

The major motive of corporations is the shareholders wealth maximization by issuing the dividends for their investments. Many factors influence dividend payment decision in corporations. The dividend determinants play a vital for issuing the dividends and for the reinvestment. The current approach is about the concept of determinants of dividends and its performance analysis through the annual compound growth rate method of various determinants of demand of select pharmaceutical companies.

**IV. OBJECTIVE**

The current study main objective is to analyze the profitability, and the growth rate of Select Pharmaceutical companies.

**V. SOURCES OF DATA**

For the current analysis data is secondary data and were collected from the financial reports of the selected pharmaceutical companies from the year 2002-2011. From internet ([www.moneycontrol.com](http://www.moneycontrol.com)).

**Tools for Analysis**

**Annual Compound Growth Rate:**

The year-over-year growth rate of an investment over a specified period of time .The compound annual growth rate is calculated by taking the nth root of the total percentage growth rate, where the number of years in the period is being considered

$$ACGR = \left( \frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{\left( \frac{1}{\# \text{ of years}} \right)} - 1$$

ACGR is not the actual return in reality. It's an imaginary number that describes the rate at which an investment would have grown if it grew at a steady rate.

**Profit before interest and taxes (PBIT)**

Profit before interest and taxes (PBIT) or operating income is a investment formula to measure of a corporation's profitability by subtracting operating expenses from revenue excluding tax and interest.

**PBIT = revenue --- Operating expenses**

**PBIT (or) operating income = Net profit + Interest + Taxes**

**Profit after Tax**

Profit after Tax (PAT) is the net profit earned by the company after deducting all expenses like interest, depreciation and tax.

**PAT= PBIT- Interest- Tax**

**Earnings per Share (EPS)**

EPS is the indicator that shows how much a share earns in a financial period. It is the amount of earnings per each outstanding share of a company's stock.

**EPS =  $\frac{\text{Net Profit available to equity shareholders}}{\text{Number of ordinary Shares out standing}}$**

**Dividend per Share**

The sum of declared dividends for every ordinary share issued. Dividend per share (DPS) is the total dividends paid out over an entire year (including interim dividends but not including special dividends) divided by the number of outstanding ordinary shares issued.

**EPS =  $\frac{\text{Dividend paid to equity shareholders}}{\text{Number of ordinary Shares out standing}}$**

**VI. DATA ANALYSIS AND INTERPRETATION**

**TABLE NO:1 Annual Compound Growth Rate of PBIT (in %)**

S.No	Company Name	PBIT (in crs )		ACGR of PBIT (in %)
		Beginning year ( 2002 )	Ending year ( 2011 )	
1	Hetero Drugs	20.25	78.4	14.49
2	Dr.Reddy Labs	579.22	1088.6	6.51
3	Cipla	285.2	1162.26	15.08
4	Sun Pharma	188.25	1454.61	22.68
5	Lupin Labs	161.74	897.01	18.6
6	Aurobindo Pharma	131.49	860.27	20.66
7	GSK	161.19	732.4	16.34
8	Cadila Healthcare	90.46	676.7	22.29
9	Aventis Pharma	90.8	279.59	11.9

10	IPCA Pharma	59.08	367.24	20.04
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Source: Annual Reports of select Pharma companies

**INTERPRETATION:**

From the above table 7.1 the annual compound growth rate of PBIT ranges from 6.21 % to 22.68 % for the selected Pharmaceutical companies. The Hetero Drugs had a growth rate of 14.49% from 2002 to 2011. Dr.Reddys is having least growth rate (6.51 % ) in PBIT among the selected companies where as the Sun Pharma has the highest growth rate of 22.68 % among the companies selected.

Dr.Reddy’s laboratories is having less operating profit compared to other companies where as the Sun Pharma has

more operating profit and has a superior in annual growth of PBIT. PBIT of Cipla increased from 285.2 crs to 1162.26 crs from the year 2002 to 2011 and it has annual co pound growth rate of 15.08%. Lupin Pharma has a moderate annual compound growth rate of 18.6 % and the PBIT ranges from 161.74 crs to 897.01 crs. Aurobindo Pharma and IPCA Pharma had a similar annual compound growth rate with a variation of 0.62 % and their growth rates of PBIT are 20.66% and 20.04 % respectively

**TABLE NO 2 : Annual Compound Growth Rate of PAT (in %)**

S.No	Company Name	PAT (in crs )		ACGR of PAT (in %)
		Beginning year ( 2002 )	Ending year ( 2011 )	
1	Hetero Drugs Ltd.,	4.31	52.34	28.36
2	Dr.Reddy Labs	553.96	920.2	5.2
3	Cipla	207.00	920.39	16.5
4	Sun Pharma	168.69	1383.8	23.42
5	Lupin Pharma	72.67	809.87	27.26
6	Aurobindo Labs	69.93	594.75	23.92
7	GSK	98.08	434.74	15.97
8	Cadila Healthcare	65.35	599.8	24.81
9	Aventis Pharma	60.8	186.37	11.9
10	IPCA Pharma	35.44	261.43	22.11

Source: Annual Reports of select Pharma companies

**INTERPRETATION:**

From the above table 7.2 the annual compound growth rate of Profit after tax (PAT) from the year 2002 to 2011 ranges from 5.2 % to 28.36 % for the selected Pharmaceutical companies. The Hetero Drugs has highest annual compound growth rate of 28.36% and its PAT ranges from 4.31crs to 52.34crs from the year 2002 to 2011. Dr.Reddy’s is having least PAT growth rate of 5.2% of PAT and it has a PAT of 553.96 crs in the year 2002 and 920.2 crs during the year 2011. Sun Pharma and Aurobindo have a similar growth rate with a minor variation of 0.5 %. Their ACGR of PAT is 23.42 % to 23.92 % respectively. GSK and Cipla had a moderate growth rate of 15.97 % and 16.5 %

respectively. Lupin Pharma and Cadilla Health care has a annual compound growth rate of 27.26 % and 24.81 % and are next to Hetero drugs ltd., in their PAT growth rates. Aventis Pharma is having a PAT growth rate of 11.9 % and its PAT increased from 60.8% to 186.37 % from the year 2002 to 2011. GSK profit after tax increased from 98.08 crs to 434.74 crs and it has a annual compound growth rate of 15.97 %. The annual compound growth rate of profit after tax for IPCA Pharma is 22.11 % and for the years 2002 to 2011 its PAT increased from 35.44 crs to 261.43 crs

**TABLE NO -3 : Annual Compound Growth Rate of EPS (in %)**

S.No	Company Name	EPS (in rs )		ACGR Of EPS (in %)
		Beginning year ( 2002 )	Ending year ( 2011 )	
1	Hetero Drugs Ltd.,	0.26	18.52	0.532
2	Dr.Reddy Labs	60.07	52.78	-0.0128
3	Cipla	39.2	11.96	0.111
4	Sun Pharma	36.33	13.36	-0.0951
5	Lupin Pharma	17.71	18.15	0.245
6	Aurobindo Labs	33.14	20.4	-0.047
7	GSK	13.17	50.84	0.144
8	Cadila Healthcare	11.26	29.81	0.102
9	Aventis Pharma	26.53	83.01	0.221
10	IPCA Pharma	27	21.11	-0.024

**INTERPRETATION:**

From the above table 7.3 there is a negative compound growth rate of EPS for the companies like Dr. Reddy's, Cipla, Sun Pharma, IPCA are -0.0128 %, -0.0951%, -0.047%, and -0.024% respectively. Cipla and GSK had similar growth rates with a variation of 0.033 % and their EPS of two companies are not similar. Lupin Pharma has a growth rate of 0.245 % and its EPS increased from 17.71rs to 18.15rs from the year 2002 to 2011. Aventis Pharma EPS increased from 26.53 rs to 83.01 rs and it has a annual compound growth rate of 0.221 % which is of

moderate growth rate. Cadila Helath care has a growth rate of 0.102 % and its EPS is increased from 11.26 rs to 29.81 rs from the year 2002 to 2011

- The negative EPS indicates that there is a loss in their Earnings per share in their compound growth rate. The negative compound growth rate doesn't mean that there is loss at per share earnings for every year it only represents the annual compound growth rate from 2002 to 2011.

**TABLE NO 4: Annual Compound Growth Rate of DPS (in %)**

S.No	Company Name	DPS ( Rs in crs )		ACGR Of DPS (in %)
		Beginning year ( 2002 )	Ending year ( 2011 )	
1	Hetero Drugs Ltd.,	0.0124	0.0200	0.0489
2	Dr.Reddy Labs	0.0760	0.1124	0.0412
3	Cipla	0.0699	0.0279	0.087
4	Sun Pharma	0.0500	0.0349	0.035
5	Lupin Pharma	0.0500	0.0300	0.049
6	Aurobindo Labs	0.0293	0.0201	0.0 313
7	GSK	0.0699	0.499	0.204
8	Cadila Healthcare	0.03500	0.0625	0.0596

9	Aventis Pharma	0.1600	0.3299	0.0750
10	IPCA Pharma	0.032	0.055	0.0527

**INTERPRETATION:**

From the above table the annual compound growth rate of dividend per share for the selected pharmaceutical companies varies from 0.035 % to 0.20%.GSK has the highest annual compound growth rate of 0.204 % and its dividend per share increased from 0.0699 crs to 0.499 crs from the year 2002 to 2011.Sun Pharma has a growth rate of 0.035 % which is the least growth rate among select pharmaceutical companies. Dr. Reddy’s Labs and with Lupin Pharma have a similar growth rates with a minor variation of 0.008 % and their growth rates are 0.041% and 0.049 % respectively. IPCA Pharma had a annual compound growth rate of 0.0527 % and its DPS increased from 0.032 crs to 0.055 crs from the year 2002 to 2011. Aurobindo Pharma and Sun Pharma had a similar growth rate with a variation of 0.004 % and their growth rates are 0.031 % and 0.035 % respectively. Cadilla Pharma has annual compound growth rate of 0.059 % where its dividend per share becomes twice that of its beginning year 2002 to 2011.The highest DPS doesn’t mean that the companies are performing well in all the areas. It depends on board decision, dividend payout ratio and several other factors.

**VII. FINDINGS**

The annual compound growth rate of select pharmaceutical companies was increased from the year 2002 to 2011 in their PBIT. Sun Pharma has the highest growth rate and. Sun Pharma and Aurobindo have a similar growth rate with a minor variation of 0.5 %. The Hetero Drugs have annual compound growth rate of 12.36%.which is an average growth rate compared to other select pharmaceutical companies. The annual compound growth rate of Profit after tax (PAT) from the year 2002 to 2011 ranges from 5.2 % to 22.68 % for the selected Pharmaceutical companies. The Hetero Drugs had a annual compound growth rate of 12.36% and Dr.Reddy’s is having least growth rate (5.2 % ) of PAT among the selected companies where as the Lupin Pharma has the highest growth rate of 27.26 %. Hetero drugs DPS is positively correlated with sales. Cipla DPS is negatively correlated with sales. The sales of Glaxo SmithKline are highly positively correlated 0.9079.Except the Aventis all the companies Interest is negatively correlated with DPS. Cipla and Glaxo Smith Kline DPS are negatively correlated with depreciation and Hetero drugs sales are highly correlated with DPS. The interest shows a high affect on the net profit of the

companies. The interest rates are negatively correlated with DPS. The dividend decision is taken to based on the previous year’s Dividend per share Earnings per share.

**VIII. CONCLUSION**

Determinants of dividend will affect the profitability of different pharmaceutical companies. Annual compound growth rates of the dividend determinants give the profitability and the growth rate of select pharmaceutical companies. The negative annual compound growth rate doesn’t mean that there is loss at per share earnings for every year it only represents the annual compound growth rate. The highest DPS doesn’t mean that the companies are performing well in all the areas. It depends on board decision ,dividend payout ratio and several other factors.

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