

## Factors determining the Dividend Policy– A case study of NSE NIFTY companies

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### Abstract

Dividend policy of a company depends on various factors. The present paper analyses the influence of select factors viz., net profits, total assets and age of a company on distribution of dividends to shareholders. Companies comprising Nifty index were chosen for analysis. Results show that the net profits and age of the company are positively related to dividend payments and investment in fixed assets is negatively related to the dividend payments. Further, influences of age of company and total assets on dividend payments were high in FMCG sector whereas influence of net profits on dividend payments was high in Metal industry.

**Key Words** :Dividend Policy, Multiple Regression, NSE, NIFTY, Determinants of Dividend Policy

## 1.1 Introduction

Dividends refer to a part of the net profits earned by the company which are distributed to the shareholders of the company. The exact amount or the rate of dividend to be paid will be decided by the Board of Directors of the company. Different companies pay dividends at different intervals based upon their discretion and the quantum of profits earned by the company. Dividends can be quoted in terms of amount each share receives which is known as Dividend Per Share. It can also be quoted in terms of market price of a share referred as Dividend Yield. Lot of factors contribute to payment of dividends to shareholders. Major factors include legal restrictions, magnitude and trend of earnings, desire and type of shareholders, nature of industry, age of company, future financial requirements, government's economic policy, taxation policy and inflation impact dividend policies. Apart from these, other monetary and numeric factors like Earnings Per Share, Profitability, total assets and growth rate of a company do have a bearing on dividend payments.

## 1.2 Review of literature

**Y. Subba Reddy (2002)** has found that payment of dividends do impact the value of a firm particularly when it comes to tax payment issues as dividends are taxed more than capital gains making an investor think twice about receiving dividends. Even the cost of raising funds plays a role in impacting dividend payments. When a company envisages a project to be yielding profits in the short term future viz the net present value of a project is positive a company may restrain from dividend payments. It was also found that for period of 1990-2001 percentage of companies paying dividends has reduced from 60.5% in 1990 to 32.1% in 2001 and only a few firms have consistently paid dividends over these years.

**I.M. Pandey (2004)** has found out that restricted monetary policies have significant influence on dividend payout ratios of companies incorporated in India with 5-6% reduction in dividend payout ratios. Macroeconomic policies do have impact on cost of raising funds and impact corporate-financing decisions. It is also observed that Indian companies always consider dividends paid in the past two financial years when deciding upon payment of dividend for the current financial year.

**A. Ajanthan (2013)** proved that dividend payout was a crucial factor affecting firm performance. Their relationship was also strong and positive.

**Nilesh Movalia (2014)** found out that profitability, leverage, Growth rate, rate of return on Dividend payout on dividend per share of the companies listed under on S&P BSE SENSEX.

Majority of the companies under the study is following constant dividend payout policy.

**Adediran S. A. and Alade S.O. (2013)** found out major relationship between dividend policy and profitability, investments and Earnings Per Share.

**Lintner (1956)** uncovered for the first time that firms in USA maintained a target dividend payout ratio and adjusted their dividend policy to this target. In addition to that, Lintner found that firms pursued a stable dividend policy and gradually increased dividends given the target payout ratio.

Based on the awareness obtained from the above literary works this paper aims to establish impact of net profits, total assets and age of company on dividend payments in a quantitative manner so as to obtain tangible results.

### 1.3 Objectives of the study

The predominant objective of this study is to estimate how net profits, total assets and age of companies are able to influence dividend decisions using multiple regression analysis technique.

### 1.4 Methodology of the study

#### Sample :

The fifty companies in NSE NIFTY index are chosen for the present study. The financial information pertaining to the financial year of 2013-14 is referred to extract the data comprising of net profits, total assets and age of the respective company and dividends to find out the influence of these monetary factors on dividend payments. All the monetary values comprising of net profits, total assets and dividends are converted into crores of Indian rupees for the purpose of calculation.

Only the sectors comprising of more than three companies representing the NIFTY index are included for sectoral analysis.

#### Techniques Used :

Multiple regression analysis has been used to conduct the research whereby net profits, total assets and age of a company function as independent variables and dividend payment acts as a dependent variable. Regression analysis is a statistical technique used for establishing relationship amongst different variables. It comprises of techniques for modeling and analysis of variables. Predominantly it focuses on establishing relationship between a dependent variable and one or more independent variables. It helps one understand how the value of a dependent variable changes when any one of the independent variables is modified while retaining the values of other independent variables.

The regression equation comprising of all the independent and dependent variables can be written as follows

$$Y = \alpha + \beta_{NP}X_1 + \beta_{TA}X_2 + \beta_{age}X_3 \text{-----(1)}$$

Where,

$X_1$  = Net profits

$X_2$  = Total assets

$X_3$  = Age of a company

NP = Net Profits

TA = Total Assets

Y = Dividends

### 1.5 Analysis of factors influencing the dividend payments among the NSE NIFTY companies:

Taking all the fifty companies into consideration for calculating dependency of dividends on net profits, total assets and age, the following regression equation has been obtained whose coefficient values can be correlated to the notations depicted in equation (1)

$$Y = 1127.19 + 0.0109X_1 - 0.0001X_2 + 4.097X_3$$

#### Interpretation

From the above mentioned values one can infer that

- When there is a one unit change in net profit, dividend value changes by 0.0109 units. So there is a positive correlation between net profits and dividends
- When there is one unit change in Total Assets, dividend value changes by 0.0001 units in the opposite direction. So there is a negative correlation between total assets and dividends which means the companies investing in assets for expansion and other purposes pay less dividend.
- When there is one unit change in age, dividend value changes by 4.097units. So there is a positive correlation between age and dividends meaning dividends are increasing with increasing age.
- Out of the three factors considered for the study, the impact of age on dividend payment is high when compared to the other two factors.

### 1.6 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in Manufacturing Sector :

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = -275.18 + 0.09652X_1 - 0.0043X_2 + 6.343X_3$$

#### Interpretation

From the above mentioned values one can infer that

- When there is a one unit change in net profit, dividend value changes by 0.09652units. So there is a positive correlation between net profits and dividends.
- When there is one unit change in Total Assets, dividend value changes by 0.0043units. So there is a positive correlation between total assets and dividends signifying that as total assets or if the productivity of them increases it results in increased dividend payments.
- When there is one unit change in age, dividend value increases by 6.343 units. So there is a positive correlation between age and meaning dividends are increasing dividends are increasing with increasing age.

### 1.7 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in Financial Services sector :

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = 501.675 + 0.011X_1 - 0.0000253X_2 - 2.734X_3$$

#### Interpretation

From the above mentioned values one can infer that

- When there is a one unit change in net profit, dividend value changes by 0.011 units. So there is a positive correlation between net profits and dividends implying that dividends increase with increasing net profits.
- When there is one unit change in Total Assets, dividend value changes by 0.0000253units in the opposite direction. So there is a negative correlation between total assets and dividends which means the companies are investing in assets for expansion and other purposes

- When there is one unit change in age, dividend value changes by 2.734 units in the opposite direction. So there is a negative correlation between age and dividends meaning dividends are decreasing with increasing age.

### 1.8 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in FMCG Sector :

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = -1983.59 + 0.73X_1 + 0.13X_2 + 137.71X_3$$

#### Interpretation

From the above mentioned values one can infer that

- When there is a one unit change in net profit dividend value changes by 0.73 units. So there is a positive correlation between net profits and dividends implying that dividends increase with increasing net profits.
- When there is one unit change in Total Assets, dividend value changes by 0.13 units. So there is a positive correlation between total assets and dividends signifying that as total assets or if the productivity of them increases it results in increased dividend payments.
- When there is one unit change in age, dividend value changes by 137.71 units. So there is a positive correlation between age and dividends meaning dividends are increasing with increasing age by a huge extent.

### 1.9 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in Energy Sector

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = 1411.93 + 0.028X_1 + 0.0063X_2 - 12.93X_3$$

#### Interpretation

From the above mentioned values one can infer that

- When there is a one unit change in net profit dividend value changes by 0.028 units. So there is a positive correlation between net profits and dividends implying that dividends increase with increasing net profits.
- When there is one unit change in Total Assets dividend value changes by 0.0063 units. So there is a positive correlation between total assets and dividends signifying that as total assets or if the productivity of them increases it results in increased dividend payments.
- When there is one unit change in age dividend value changes by 12.93 units in the opposite direction. So there is a negative correlation between age and dividends meaning dividends are decreasing with increasing age.

### 1.10 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in Pharmasector

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = 406.95 + 0.01X_1 - 0.002X_2 - 3.25X_3$$

**Interpretation**

From the above mentioned values one can infer that

- When there is a one unit change in net profit dividend value changes by 0.01 units. So there is a positive correlation between net profits and dividends implying that dividends increase with increasing net profits.
- When there is one unit change in Total Assets dividend value changes by 0.002 units in the negative direction. So there is a negative correlation between total assets and dividends which means the companies are investing in assets for expansion and other purposes.
- When there is one unit change in age dividend value changes by 3.25 units in the opposite direction. So there is a negative correlation between age and dividends meaning dividends are decreasing with increasing age.
- Without the influence of independent variables dividend value increases by 406.95 units.

### **1.11 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in Metal Sector**

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = -1609.43 + 1.314X_1 + 0.009X_2 - 20.98X_3$$

**Interpretation**

From the above mentioned values one can infer that

- When there is a one unit change in net profit dividend value changes by 1.314 units. So there is a positive correlation between net profits and dividends implying that dividends increase with increasing net profits.
- When there is one unit change in Total Assets dividend value changes by 0.009 units. So there is a positive correlation between total assets and dividends signifying that as total assets or if the productivity of them increases it results in increased dividend payments.
- When there is one unit change in age dividend value changes by 20.98 units in the opposite direction. So there is a negative correlation between age and dividends meaning dividends are decreasing with increasing age.

### **1.12 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in IT services Sector**

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = -1164.9 + 0.249X_1 + 0.00041X_2 + 24.13X_3$$

**Interpretation**

From the above mentioned values one can infer that

- When there is a one unit change in net profit dividend changes by 0.249 units. So there is a positive correlation between net profits and dividends implying that dividends increase with increasing net profits.

- When there is one unit change in Total Assets dividend value changes by 0.00041 units. So there is a positive correlation between total assets and dividends signifying that as total assets or if the productivity of them increases it results in increased dividend payments to a small extent.
- When there is one unit change in age dividend changes by 24.13 units. So there is a positive correlation between age and dividends meaning dividends are increasing with increasing age by a considerable extent.

### 1.13 Analysis of factors influencing the dividend payments among the NSE NIFTY companies in Automobile Sector

As per the notations depicted in equation (1) above, the following equation is obtained

$$Y = 894.896 - 0.095X_1 - 0.049X_2 + 20.842X_3$$

#### Interpretation

From the above mentioned values one can infer that

- When there is a one unit change in net profit dividend changes by 0.095 units in the opposite direction. So there is a negative correlation between net profits and dividends implying that dividends decrease with increasing net profits.
- When there is one unit change in Total Assets dividend value changes by 0.049 units in the opposite direction. So there is a negative correlation between total assets and dividends which mean the companies are investing in assets for expansion and other purposes.
- When there is one unit change in age dividend changes by 20.842 units. So there is a positive correlation between age and dividends meaning dividends are increasing with increasing age

### 1.14 Major Findings of the Study

- Net profits and age of a company positively influence dividend payments
- Total assets negatively influence dividend payments
- **Age of company** influencing the dividend payments is the largest in **FMCG** industry with a value of **137.71** i.e. with one unit increase in age, dividend payment increases by 137.71 units
- **Net profits** influencing dividend payments is the largest in **metal** industry with a value of **1.314** i.e. with one unit increase in net profits, dividend payment increases by 1.314 units
- **Total Assets** influencing dividend payments is the largest in **FMCG** industry with a value of **0.13** i.e. with one unit increase in total assets, dividend payment increases by 0.13 units
- In Manufacturing, Financial services, FMCG, Energy, Pharma, Metal and IT services sectors, net profits are positively correlated with dividend payments.
- Automobile is the only sector where net profits are negatively correlated with dividend payments
- In FMCG, Energy, Metal and IT services sectors, Investment made in Total assets are positively correlated with dividend payments.
- In Automobile, Pharma and Financial services sectors, Investment made in Total assets are negatively correlated with dividend payments
- In Manufacturing, FMCG, IT services and Automobile sectors, Age is positively correlated with dividend payments

- In Metal, Pharma, Energy and Financial service sectors, Age is negatively correlated with dividend payments

### 1.15 Suggestions

- Investors who prefer investing in Metal stocks can invest in those companies which have higher earnings or net profits when compared to their competitors.
- Investors interested in FMCG stocks can pour in their money in those companies which have a relatively higher value of assets in comparison with their competitors and those which are well established depending upon their commencement.

### 1.16 Conclusion

The present study examined the dividend payment behavior of 50 different companies comprising NIFTY belonging to various sectors/ industries with the help of multiple regression analysis technique. The research concludes that the factors considered for the study has influenced dividend payments of companies belonging to different sectors in a distinct way. So investors keen in raising their earnings from investment in shares should keep these influencing factors in mind and should consider them before zeroing on a particular sector for their investment portfolio.

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