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A COMPARATIVE STUDY OF IMPACT OF DIVIDEND ON STOCK RETURNS OF SELECTED BSE LISTED PHARMA & CHEMICAL COMPANIES

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ABSTRACT

The main objectives of the present study were to study the relationship between dividend and stock returns and dividend yield and stock returns of selected BSE Listed Pharma and Chemical companies. Further, the study measures the impact of DPS on ROA. The present study was also highlighted the significant difference of dividend payout ratio among different Pharma & Chemical companies selected for the study. The present study was carried on the data collected from BSE listed Pharma and chemical companies. The secondary data consists of facts & figures of dividend payout, dividend per share, dividend yield etc. The relevant data of dividend, stock returns, dividend yield, DPS, ROA, dividend payout ratio have been collected from the financial statements of the Pharma & Chemical companies over the period of 2018 to 2022. The result of this paper suggests that, dividend has significant effect on stock returns of Pharma & Chemical companies selected for the study. The framed hypotheses were tested by using regression analysis and one-way anova test.

Keywords: *Dividend, Dividend Yield, Stock Returns, DPS, ROA, ANOVA.*

Introduction

The part of earnings is distributed in the form of DPS is termed as dividend. The dividend distribution decision involves activities in relation to distribution of earnings as a return back of earnings to its shareholders. Distribution of dividend from company's current profits is a key decision. Dividend distribution has two perspectives. One is investors' perspective and another one is from company's perspective. Every investor wants to increase the current returns on investment made by them. They would prefer more dividends.

The amount of dividend per share will fluctuate from year to year depending upon the availability of acceptable opportunities. Dividend policy is one of the important components of overall financial policy of the firm. Dividend per share (DPS) and Earnings per share (EPS) are the important components for determining the dividend payout ratio.

Pharmaceutical Industry is flourishing in production, value, volume, number of units by steadily and contributing significantly in Indian's GDP growth. India's Pharmaceutical sector is growing expeditiously. India is the world's largest provider of generic medicines by volume. It is also largest vaccine supplier in the world by volume.

The market size of chemical industry in India is over 180 billion dollars and is continuously growing. The chemical industry is the most diversified industry. The industry has witnessed increasing growth in organic and inorganic chemical companies. Due to this, researchers have made an attempt to

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select the Pharma & Chemical sectors to find out the impact of dividend on stock returns. The Dividend yield ratio is a significant ratio in evaluating investment. The dividend payout ratio exhibits the proportion of earnings to be distributed as dividends to its shareholders.

Objectives of the Study

- To find the impact of dividend on stock returns.
- To measure out the impact of DPS on ROA.
- To know the relationship of dividend yield and stock returns.
- To study whether dividend payout ratio is significantly different among different Pharma & Chemical companies selected for the study.

Review of Literature

Mishra and Narender (1996) have examined the dividend policies of 39 state owned enterprises (SOE) in India from the period of 1984-85 to 1993-94. They observed that Earnings Per Share (EPS) was a major factor in determining the dividend payout of SOEs.

Manickam & Naleson (2008) studied 10 major industries which have been selected on the basic of convince sampling method for the period of 10 years during 1992-2001. They found in the frequency distribution of dividend per share that maximum numbers of companies are distributed in the medium category of chemical, cotton, textiles, electrical, metal and alloy, paper, sugar and synthetic textiles industries. Among the selected 10 industries, more number of companies in the automobile, chemical and electrical industries have paid maximum dividend of Rs.2 and above more no companies in the cement, engineering and metal and Alloy industries have paid minimum dividend of below Rs.0.5 frequency class intervals, the study concluded that maximum no of companies has paid dividend per share of below Rs.5.

Lalitha Mani & Priya (2010) studied dividend behaviour of five Indian steel companies are considered for the analysis. The study disclosed that Tata steel has highest earnings per share with high dividend amount declaration. SAIL which has the phenomenal expansion rate during the study.

Marfo-Yiadom & Agyei (2011) conducted study is to find out the connections between dividend policy and performance of banks in Ghana. The results reinforce earlier findings that leverage, size of a bank and bank growth enhance the performance of banks. The age factor presents mixed results. Generally, the result is in tandem with earlier studies that dividend policy has an effect on firm value.

S.M. Tariq Zafar, (2012) analyzed the influence of dividend on shareholders wealth of eleven selected Indian banks listed and actively traded in National Stock Exchange (NSE). This paper is divided majorly in to two parts. Initial part of paper highlights dividend and its legal implications. Remaining part comprises of data analysis that focuses on fact that there is significant impact of dividend policy on the shareholder's wealth in Indian banking companies.

Sources of Data

The present study is based on the secondary data source. Secondary data consists of the annual report of the different pharmaceutical companies selected for the study. The secondary data collected from the SANSCO SERVICES - Annual Reports Library Services source. The data collected from this source have been complied and used with due care as per the requirement of the study.

Methodology

Total 160 Pharma companies and 94 Chemical companies have been listed in the Bombay Stock Exchange. Out of 160 Pharma companies, the researchers have selected 140 Pharma companies and out of 94 Chemical companies, 84 companies were selected by applying the Krejcie & Morgan formula of determination of sample size. Purposive sample technique was used for selection of the sample companies from Pharma & Chemical sectors. Independent variables selected for the study were Dividend per share (DPS), Dividend yield, Dividend Payout Ratio and dependent variables were Stock returns, ROA. Based on these variables, Regression analysis, One-way Anova has been used for testing of hypothesis.

Model for the Study

- Stock returns (Y) = a+ b X(DPS)
- ROA(Y) = a + b X(DPS)
- Dividend Yield (Y) = a + b X(Stock returns)

Period of Study

The period of the present study was five years commencing from the year 2018 to year 2022.

Scope & Limitations of the Study

The analysis of this research is confined to the selected Pharma and Chemical companies which are listed to the Bombay Stock Exchange (BSE). The reason is that the listed companies are required to follow the norms set by the Securities and Exchange Board of India (SEBI) for financial reporting. This study is only limited to the selected Pharma and Chemical companies listed in the Bombay Stock Exchange. Further, this study possesses all the inherent limitations of the financial data.

Hypothesis of the Study

H_0: Dividend has no effect on stock returns

H_1: Dividend has effect on stock returns

H_0: Dividend Per Share has no significant impact on Return on Assets.

H_1: Dividend Per Share has significant impact on Return on Assets

H_0: Dividend yield is not dependent on stock returns

H_1: Dividend yield is dependent on stock returns

H_0: Dividend payout ratio is not significantly different among different Pharma & Chemical companies

H_1: Dividend payout ratio is significantly different among different Pharma & Chemical companies

Analysis and Results

In case of Pharma Companies

H_0: Dividend has no effect on stock returns

H_1: Dividend has effect on stock returns

R	R^2	P-Value	Decision
0.85	0.70	0.00	H_0 is rejected

Source: - Regression output

It is evident from the above table that, P-value is 0.00 which is less than 0.05. This means null hypothesis is rejected and alternative hypothesis is accepted. Therefore, as far as Pharma companies are concerned, dividend has significant effect on stock returns.

H_0: Dividend Per Share has no significant impact on Return on Assets.

H_1: Dividend Per Share has significant impact on Return on Assets

R	R^2	P-Value	Decision
0.55	0.30	0.00	H_0 is rejected

Source: - Regression output

It is clear from the above result that, P-value is 0.00 which is less than 0.05. It means null hypothesis is rejected and alternative hypothesis is accepted. Hence, as regards of Pharma companies, DPS has significant impact on ROA.

H_0: Dividend yield is not dependent on stock returns

H_1: Dividend yield is dependent on stock returns

R	R^2	P-Value	Decision
0.50	0.25	0.00	H_0 is rejected

Source: - Regression output

It is apparent from the above table that, P-value is 0.00 which is less than 0.05, hence null hypothesis is rejected. Therefore, dividend yield is dependent on stock returns. Hence, in case of Pharma companies, dividend yield is dependent on stock returns.

In case of Chemical Companies

H_0: Dividend has no effect on stock returns

H_1: Dividend has effect on stock returns

R	R^2	P-Value	Decision
0.84	0.70	0.00	H_0 is rejected

Source: - Regression Output

It is obvious from the above table that, P-value is 0.00 which is less than 0.05. Hence null hypothesis is rejected, i.e. dividend has not significant effect on stock returns and alternative hypothesis is accepted i.e. dividend has significant effect on stock returns. Therefore, in case of chemical companies also dividend has significant effect on stock returns.

H_0: Dividend Per Share has no significant impact on Return on Assets.

H_1: Dividend Per Share has significant impact on Return on Assets

R	R^2	P-Value	Decision
0.40	0.16	0.72	H_0 is accepted

Source: Regression Output

It is clear from the above table that, P-value is 0.72 which is more than 0.05. Hence null hypothesis is accepted, i.e. DPS has no significant impact on ROA. Therefore, in case of chemical companies, DPS has not significant on ROA.

H_0: Dividend yield is not dependent on stock returns

H_1: Dividend yield is dependent on stock returns

R	R^2	P-Value	Decision
0.60	0.36	0.00	H_0 is rejected

Source: Regression Output

It is obvious from the above table that, P-value is 0.00 which is less than 0.05. Hence null hypothesis is rejected and alternative hypothesis is accepted. Therefore, in case of chemical companies, Dividend yield is dependent on stock returns.

H_0: Dividend payout ratio is not significantly different among different Pharma & Chemical companies

H_1: Dividend payout ratio is significantly different among different Pharma & Chemical companies

ANOVA						
Source of Variation	***SS***	***df***	***MS***	***F***	***P-value***	***F crit***
Between Groups	4.184179	1	4.184179	1.521126	0.217722	3.85023
Within Groups	2921.256	1062	2.750712			
Total	2925.44	1063				

Source: ANOVA Output

It has been evident from above table that, P calculated value is 0.217 which is more than the P critical value of 0.05. Hence, null hypothesis is accepted. Therefore, dividend payout ratio is not significantly different among different Pharma and Chemical companies. Further it is also evident from the F value. Here, F calculated value is 1.52 which is less than F critical value i.e. 3.85. Hence, null hypothesis is accepted.

Conclusion

From the study it was concluded that during the study period, dividend has significant effect on stock returns of the Pharma & Chemical companies selected for the study. In the case of Pharma companies, Dividend per share (DPS) has significant impact on ROA whereas in the case of Chemical companies, it has no significant impact on ROA.

In case of Pharma companies, r^2 value was 0.70 and P-value was 0.00, this suggests that regression model is significant (i.e. Y= 319.03 + 39.67X). Hence, model proves that dividend has significant effect on stock returns of Pharma companies.

In case of Chemical companies, r^2 value was 0.70 and P-value was 0.00, this also suggests that regression model is significant (i.e. Y= 234.04 + 19.77X). Hence, model proves that dividend has significant effect on stock returns of Chemical companies.

In case of Pharma companies, due to low P-value (i.e. 0.00) as compared to 0.05, null hypothesis is rejected but due to low r^2 value which was 0.30. Hence, regression model is insignificant as far as impact of DPS on ROA is concerned. Even in case of chemical companies, the regression model is insignificant due to low r^2 value and high P-value.

In both the sectors, dividend yield is dependent on stock returns. But in both sector's regression model is insignificant because of low r^2 and low P-value. Hence no model is framed for both the sectors in regards of dividend yield and stock returns.

As far as dividend payout is concerned, it is not significantly different among different Pharma and Chemical companies selected for the study.

Based on the results, the present study highlights that dividend policy has impact on the stock returns but other factors have also impacting on the stock returns. Therefore, the present study highlights the dividend relevancy model.

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