IMPACT OF DIVIDENDS ON SHARE PRICES: A STUDY OF INDIAN FIRMS

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ABSTRACT:

The present study has been undertaken to examine the impact of dividends and retained earnings on share prices of Indian firms, after controlling for the effects of lagged Price to Earnings ratio and Lagged share prices. CNX 100 companies listed on National Stock Exchange of India Ltd. have been analyzed for a period spanning from 2009 to 2013. Multivariate Regression Analysis has been applied to study the relationship between dividends, retained earnings and stock prices. The findings of the study indicate a highly significant and a positive impact of dividends and retained earnings on the stock prices. The results also provide evidence of a significant-positive relationship of both lagged Price to Earnings Ratio and Lagged Share Price with the market share prices of the sample firms. The study concludes that dividends have the most dominant impact on the share prices and the investors prefer dividends over retained earnings.

Keywords: Dividends, India, NSE 100, retained earnings, share prices.

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Introduction:

The three major decisions for a financial manager include the investment decisions; financing decisions and the dividend decisions. These decisions are taken with an objective to maximize firm value. The investment decision involves selection of assets in which funds are to be invested. These decisions include capital budgeting as well as working capital management decisions. Financing decisions relate to the mix of debt and equity in the capital structure. Finally the dividend decision considers that whether a firm should distribute all / portion of its profits or retain these for future investment opportunities. Dividend announcements are anticipated to have a strong impact on the market price of shares. Therefore management should take dividend decisions keeping in mind their impact on shareholders' wealth. Also an optimum dividend policy is considered to be the one which maximizes the shareholder's value.

However understanding and evaluating dividend policy decisions have always been very popular among the finance scholars. Several issues relating to dividends have been studied and several theories and models have been contributed by the previous studies which have helped in explaining the corporate dividend behavior.

Earlier studies on dividends focused primarily on the developed markets. Although recently a number of studies have come up examining the effects of dividends on stock prices among the emerging economies. The present study too makes attempts to examine the impact of dividends and retained earnings on the stock prices for the developing Indian markets.

Review of Literature:

In the last few years the focus has shifted from examining the effects of dividends from the developed markets towards the emerging markets. The studies examining the impact of dividends on stock prices across emerging economies have been briefly described below:

Pradhan (2003) examined the effect of dividend payments and retained earnings on share prices behavior using 29 companies listed on Nepal Stock Exchange (1991-1996). The results from multivariate regression analysis indicated a predominant influence of dividends and an absence of retained earnings effect on share prices.

Pani (2008) explored the relationship between dividend policy and stock price behavior in India for a sample of 500 companies listed on Bombay Stock Exchange (1996-2006). Panel data analysis was used to indicate that dividend-retention ratio, size and debt-equity ratio significantly explained the variations in stock returns, confirming the presence of firm level effect in the relationship between dividend policy and stock price behavior.

Khan (2009) examined the impact of dividends and retained earnings using a sample of 96 companies listed on Dhaka Stock Exchange (2000-2006). The findings of regression analysis suggested that the overall impact of dividends was better than retained earnings.

Joshi (2010) examined the impact of dividends on stock prices for 163 companies listed on Nepal Stock Exchange using multivariate linear regression analysis. The results indicated the impact of dividends as more pronounced than that of retained earnings.

Asamoah (2010) evaluated the impact of dividend announcement on share price behavior of firms listed on Ghana Stock Exchange (GSE) using event study methodology (2003-2005). The study was undertaken to establish the degree of efficiency of the GSE in impounding relevant information in share prices and the results revealed that GSE was not semi-strong efficient.

Ali and Chowdhury (2010) examined the effect of dividends on stock price behavior of listed Private Commercial Banks in Bangladesh using standard event methodology. The results revealed that the stock price reaction to dividend announcement was not statistically significant. Hence it was concluded that dividend announcement does not convey any information.

Khan (2012) studied the effects of dividends on stock prices for the Chemical and Pharmaceutical Industry of Pakistan using panel data analysis (2001-2010). The results indicated that Cash Dividend, Retention Ratio and Return on Equity have a significant positive relation with stock prices while Earnings per Share and Stock Dividends have a negative insignificant relation with stock prices.

Troudi and Milhem (2013) examined the empirical relationship between cash dividends, retained earnings and stock prices in context of Jordan using regression analysis (2005-2010). The findings of the study indicated a significant - positive relationship of cash dividends, retained earnings, earnings per share with stock prices while a positive but insignificant relationship with financial leverage.

Masum (2014) examined the impact of dividend policy on the stock prices of all thirty banks listed on Dhaka Stock Exchange using panel data analysis (2007-2011). The results revealed that earnings per share, return on equity, retention ratio have a significant positive relationship with stock prices; however dividend yield and profit after tax have an insignificant negative relationship with stock prices.

Hence there are a large number of studies examining the effects of dividends on share prices across various emerging world economies. However dearth of such studies in India provides motivation to examine the relationship of dividends and retained earnings on share prices for the Indian companies.

Research Objectives:

The research objectives of the study are as follows:

1. To examine the impact of Dividends on share prices for Indian firms.
2. To examine the impact of Retained Earnings on share prices for Indian firms.
3. To examine the impact of Lagged Price to Earnings ratio on share prices for Indian firms.
4. To examine the impact of Lagged market prices on share prices for Indian firms.

Research Hypothesis:

1. Dividends do not have a significant impact on share prices.
2. Retained Earnings does not have a significant impact on share prices.
3. Lagged Price to Earnings ratio does not have a significant impact on share prices.
4. Lagged market price does not have a significant impact on share prices.

Data and Methodology:

The sample selected for the study consists of CNX 100 companies stocks listed on National Stock Exchange of India Ltd. (NSE). CNX 100 Index is a diversified stock index accounting for stocks across 38 sectors of the Indian economy. For the purpose of the study, annual data has been collected from CMIE Prowess database for all the 100 companies for a period of spanning from 2009 to 2013. However the final sample size consisted of 92 companies due to incomplete data records for 8 companies.

Multivariate Regression Analysis has been used to test the sample data. The entire analysis has been done using EViews 8 software. Market price per share is the dependent variable in the study and the independent variables include Dividend per share and Retained Earnings per share (as a proxy for dividends and retained earnings respectively). Lagged Price to Earnings ratio and Lagged Market prices are used as control variables in the study. Average values of these variables have been considered for the purpose of analysis.

Model Specification:

Previous studies across emerging economies have indicated a pronounced impact of dividends over retained earnings. Hence the study intends to examine the dividend and retained earnings effects for Indian firms. Moreover previous studies have revealed that earlier period earnings and past market prices indicate about the path of the company, significantly affecting the market prices (Joshi, 2010). Therefore the study controls for the effects of lagged price to earnings ratio and lagged market price on market price per share.

The model used in the study is based on Friend and Puckett (1964), Pradhan (2003), Khan (2009) and Joshi (2010). The model assumes hypothetically that the share price depends upon dividends per share, retained earnings per share, lagged price to earnings ratio and lagged market price:

$$Pit = \alpha + \beta 1DPSit + \beta 2RPSit + \beta 3\left(\frac{P}{E}\right)i(t-1) + \beta 4Pi(t-1) + \epsilon it \ldots\ldots\ldots\ldots(1)$$

Where, Pit = Market price per share of ith company at time ‘t’

DPSit = Dividends per share of ith company at time ‘t’

RPSit = Retained Earnings per share of ith company at time ‘t’

P/Ei(t - 1) = Lagged Price to Equity ratio of i[th] company at time 't-1'

Pi(t – 1) = Lagged Market Price per share of i[th] company at time 't-1'

ε it = error term.

Further the market price per share is taken as the share closing price for the respective year. Dividends per share are calculated as Equity Dividends divided by shares outstanding at the year end. Retained Earnings per share are calculated as Retained Profits divided by shares outstanding at the year end. Lastly for Lagged Price to Equity ratio and Lagged Market price, the P/E ratio and Market Price per share for the previous year is considered.

Empirical Findings:

First of all the descriptive statistics of all the variables in the study are examined. These results are provided in Table 1.

Table 1: Table showing Descriptive Statistics

Statistics	Price	DPS	RPS	Lagged P/E	Lagged Price
Mean	743.4542	10.89781	28.81466	23.25314	749.2063
Maximum	6354.710	68.00005	197.3875	125.9875	5303.730
Minimum	94.72000	0.580391	1.604227	5.586000	95.05000
Std. Dev.	830.9071	12.25070	31.05876	17.96303	736.5388

The values of the dependent variable Market Price per share ranges from a minimum of 94.72 to a maximum of 6354.71 with a standard deviation of 830.9 indicating large variations in the market prices of the sample firms across the sample period. The maximum and the minimum values of Dividend per share indicate that a few firms pay very little dividends while the remaining pays larger dividends. However the mean value signifies that on an average, sample firms pay a dividend per share of 10.898. Retained Earnings per share varies from 1.60 to 197.38 indicating huge differences in the amount of earnings retained per share by the sample firms over the period of study. However the mean value of 28.81points out that on an average, the sample firms maintain a small amount of retained earnings per share.

The large variation in Lagged P/E ratio ranges from 5.586 to 125.988. The mean value of 23.2531 indicates that the investors are willing to pay a price of rupees 23.25 for every rupee of earnings generated by the company. Lagged Market Prices varies from a minimum of 95.05 to maximum of 5303.730 having a standard deviation of 736.54, exhibiting huge differences in share prices of previous year.

Further the results of multivariate regression analysis are presented in Table 2 and Table3. Table 2 illustrates the model summary and Table 3 demonstrates the values of coefficients derived.

Table 2: Model Summary

Model	R-squared	Adjusted R-squared	Std. Error of Estimates	F-statistic
1	0.916833	0.913009	245.0697	239.7713 (0.0000)

Note: Prob(F-statistic) is given in parenthesis

The results in Table 2 depict a high value of Adjusted R-squared (0.9130) indicating a superior goodness of fit of the regression model. The probability of F-statistic for the regression model is significant at 99% confidence level indicating that the regression model significantly explains the variations in the share prices of Indian firms.

Table 3: Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	T-value	Sig.
	B	Std. Error	Beta		
Constant	-205.1367	56.08598		-3.657540	0.0004
DPS	16.30413	3.093842	0.24038	5.269865	0.0000
RPS	5.431571	1.379291	0.20302	3.937945	0.0002
Lagged P/E	4.178007	1.595050	0.09032	2.619359	0.0104
Lagged Price	0.690399	0.066914	0.61199	10.31769	0.0000

[a]: Dependent variable – Market price per share

The first hypothesis assumed that there is no significant impact of dividends on the share prices. The results presented in Table 3 revealed that dividends have a strong and positive impact on share prices, significant at 99% confidence level. The coefficient value of 16.30413 implies that with 1 unit increase in the dividends per share, market price per share (or closing price) will increase by 16.30 units, ceteris paribus.

The second hypothesis assumed that there is no significant impact of retained earnings on share prices of the sample firms. The findings (Table 3) indicated that retained earnings are highly significant in explaining the stock prices, significant at 99% confidence level. The coefficient value of 5.43 indicates a positive association between retained earnings per share and share prices suggesting a rise of 5.43 units in stock price as a result of 1 unit increase in retained earnings per share, ceteris paribus.

The third hypothesis of the study assumed no significant impact of Lagged Price to Earnings ratio on share prices. The results provide evidence of a positive and significant relationship between Lagged Price to Earnings ratio and share prices, significant at 95% confidence level. The coefficient value implies a growth of 4.178 units in stock prices as a result of 1 unit increase in Lagged Price to Earnings ratio, ceteris paribus.

The last hypothesis assumed no significant relationship between stock prices and lagged market price per share. Findings indicated a positive and significant relationship between the two at 99% confidence level. However a small coefficient implies an increase of 0.69 units in stock prices after increasing lagged market prices by 1 unit, ceteris paribus.

Moreover it must be noted that the dividends coefficient (16.30) is higher than the coefficient of retained earnings (5.43). Therefore overall the results reveal that dividends have the strongest impact on stock prices among the Indian firms. These results are supported by the findings from previous studies conducted across emerging economies, indicating a dominant effect of dividends on share prices.

Conclusion and Scope for Further Research:

The present study attempted to examine the impact of dividends on stock prices for the NSE 100 companies. The results indicated a positive and highly significant relationship between dividends and share prices of Indian firms. Similarly, the results for the retained earnings on share prices revealed a significant and positive impact on share prices. However it is observed that the impact of dividends is much stronger and dominant than that of the retained earnings capable of increasing the share prices by 16.30 units with an increase in 1 unit of Dividends per share (other things remaining constant). On the other hand, 1 unit increase in retained earnings results in only 5.43 units of increase in share prices.

Further the Lagged Price to Earnings ratio significantly and positively impacts stock prices of the Indian firms, implying that firms with a higher Lagged Price to Earnings ratio are more likely to display higher stock prices than firms with a lower Lagged Price to Earnings ratio. Lastly the results provide evidence of a positive and highly significant relationship between Lagged market prices and current market prices. Overall the findings reveal that dividends are the most dominant factor strong enough to boost stock prices and investors prefer dividends over retained earnings.

The study could be further extended to incorporate a larger sample size to generate generalized results. Effects of dividends could be examined across individual sectors to observe the differences in the impact of dividends across these sectors.

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