Impact of Dividend Announcement on Value of Firm- A Case of HDFC Bank Limited

Ashutosh Singh
(Assistant Professor, Management Department, IILM-Academy Of Higher Learning-College of Engineering and Technology, Knowledge park –II, Greater Noida, India)

ABSTRACT

Purpose: *Prime focus of this study is to identify dose dividend plays any role in affecting market price of the share or not. Researches in past had stated contradictory statements. Some said that dividend announcement by the firm, some says dividend have no effect of the value of a firm.*

Design: *HDFC Bank Ltd. was selected for the study. Data for research was collected from secondary sources i.e. websites of NSE and other website that publish financial and economic data. To analyse the effect of dividend CAPM model was used to check the expected return. Actual return was subtracted from expected return to find out abnormal return. Paired Sample T-test was used to compare the means of abnormal return before and after announcement of dividend.*

Findings: *It was found that for HDFC Bank Ltd. dividend is not affecting the price of shares. There is a minute fluctuation found in the Abnormal Rate of Return.*

Research limitations:

Nifty Private Bank Index was introduced on 5, January 2016 due to this index return for the share was calculated from 2016 only. Due to limitation of time only one company was selected for the research.

Keywords: *Dividend, Market Price, Abnormal Return.*

1. Introduction

Financial assets especially shares are attraction for investors due to increase in its value. Performance of organisation increases the demand of its shares because investors have expectation of getting good amount of dividend each share. In actual share prices are affected by multiple macro and micro economic factors. Dividend decisions are also critical for managers too. Black (1976) titled his article “The dividend puzzle”. Fisher represented “dividend policy” as a dilemmatic situation. He raised question- what is the effect of dividend in the investor’s portfolio? What an organisation do about dividend policy? Fisher’s concern for dividend policy was the result of MM-Hypothesis and Walter’s Model. Miller and Modigilani (1976) said if perfect capital market exists, there is no taxation, company follows constant investment policy and there is no uncertainty of future profits firms market value will not affected by dividend declared by the company. Walter (1963) believed firm's dividend policy will affect the value of firm if, firm is not using any external financing, rate of return and cost of capital are constant, all earnings are either retained or distributed to shareholders, earning per share and dividend per share remain constant and firm have perpetual life.

Researchers also debate on the rationality of the investors. It plays an important role in terms of share prices and dividend policy. If investor is rational he would not follow the pattern of demand of shares. It is believed by some researchers that share prices or value of firm does increase due to announcement of dividend by the firm. Fama(1965) said that stock prices reflects all the relevant information available. Do value of firm also affected by the dividend policy of the firm too?

Under efficient market hypothesis made an assumption that market discounts everything. Well strong market is practically not possible but semi strong form of market is possible. Fama(1991) focused the area of research to semi-strong market. Expected return is the important aspect of this study. Variation in expected return shows the taste of the investor.

Kaźmierska-Jóźwiak (2015) while examining cash dividend payment by polish companies, relationship was found in company's dividend policy, size of firm, leverage, profitability and liquidity. Bhattacharya (1979) offered a model in which dividend works as a signal of expected cash flow of expected cash flow of firm for situation when perfect information is not available. Practically strong form of capital market is a rare situation especially for the countries like India.

2. Survey of prior research

Chelimo & Kiprop (2017) worked over dividend policies of the companies and their effect on share prices of listed insurance companies at Nairobi Stock Exchange, Kenya. They studied data of six companies from 2006 to 2015. Dividend payout, average market price, earning per share were studied as dependent variables and inflation is treated as an independent variable. Dynamic Regression analysis was used to test the data. It was concluded in the study that share prices may move up or down due to announcement of dividend policy.

Gordon (1962) stated that dividend plays a vital role in increasing value of firm. Patra and Dhar (2017) found while analysing the data of Apollo Hospitals Ltd. from 2003-04 to 2012-13. Variables selected for the study were profit after tax, dividend paid, projected dividend, current ratio, retained earnings, cash flow, debt equity ratio and annual sales. All these variables are important factors in maximising the value of firm. The study supports Walter and Gordon Approach of dividend policy. Malhotra and Tandon (2013) analysed determinant of stock prices: empirical evidence from NSE 100 companies. Research period was 2007-2012. Correlation and linear regression model was used to analyse the data. Market price, per share, book value, earning per share, dividend cover, dividend yield and price earning ratio are the variables that analysed. It was found that book value, earning per share have a significant impact on firms value.

Kandpal and Kavidayal (2015) selected 15 public and private banks listed in Bombay Stock exchange (BSE) from 2003-04 to 2012-13. Multiple regression analysis t-tests, coefficient of determination (R2) and F-test was used to analyse the data. Positive correlation was diagnosed between dividend payout ratio of private and public sector banks. Study concluded that dividend policy have significant impact over share prices of banks.

Sulaiman and Migiro (2015) used panel data approach to establish the result which reveals that a linkage exists between dividend decision and changes in the price of shares. 15 companies across 9 sectors were selected from Nigerian economy from the time span of 2003 to 2012. Dividend per share and earnings per share have positive correlation with stock prices. Size of the company is negatively and insignificantly related with changes in stock prices. The study further concluded that size of the company doesn’t matter while determining value of stock prices in the market.

Pani, U (2008) gathered data of 500 listed companies listed in Bombay Stock Exchange (BSE) from year 1996-2006. Panel data approach used to analyse the relationship between dividend-retention ratio and stock price behaviour. Findings of research were- dividend retention ratio is positively related to stock returns. Negative relationship found between stock return and debt equity ratio, high debt leads to less stock returns.

3. **Research Methodology** - This study attempted to analyse the informational efficiency of HDFC Bank Limited stocks.

3.1) Period of study: Period of study is 2016-18

3.2) Sample Size: Nifty Private Bank Index and Closing price of HDFC Bank stock selected for the study. Interval of calculating return is -10 Day and +10 Days from dividend declaration.

3.3) Sample Unit: HDFC Bank is selected for the study because of highest market capitalization among Indian private banks, i.e. 534,142.49 Crore.

3.4) Data Source: Secondary sources are used to collect the data i.e. website of National Stock Exchange (NSE), marketwatch.com and statista.com.

3.5) Tools of analysis: Daily return of the security and market index were calculated using equations below-

Return on Investment-

$$R_i = \frac{P_t - P_{t-1}}{P_{t-1}} * 100$$

R_i= Return on Investment

P_t= Price of the security at the time t.

P_{t-1}= Price of the security at time t-1

Index Return- Index return is calculated from Nifty Private Bank. Formula to calculate index return –

$$Index\ Return = \frac{R_t}{R_{t-1} - 1}$$

Where

R_t= Closing of index on current day

R_{t-1}= Closing of index a day before current day.

Abnormal return: Abnormal return is return on investment above or below the expectation of an investor.

$$Abnormal\ Return = R_t - Rm_t$$

R_t= Actual Returns on security at time t.
Rm_t= Expected returns on market for period t.

Risk Free Rate of Return: To calculate risk free rate, return yield of Government bond is subtracted from the current inflation rate. Current inflation rate is 4.96%, 2017-3.6% and 4.5%.

3.6) Hypothesis: There is no significant difference between abnormal return after the announcement of dividend

4. Objectives of the study

a) To study the impact of dividend on banking sector stock.
b) To study the stock price behavior due after announcement of dividend.

5. Limitation of the Research

a) Nifty Private Bank Index was introduced on 5, January 2018.
b) Study is only concentrated on the stocks of HDFC Bank limited.

6. Data Analysis

Under this research correlation test is performed on the data. Table 1 shows the result of correlation between share prices and dividend. Correlation of share prices and dividend is 1.

Correlations

		Dividend	SharePrice
Dividend	Pearson Correlation	1	.517*
	Sig. (2-tailed)		.020
	N	20	20
SharePrice	Pearson Correlation	.517*	1
	Sig. (2-tailed)	.020	
	N	20	20

*. Correlation is significant at the 0.05 level (2-tailed).

Table: 1

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
Difference 2016	.936	9	.539
Difference 2017	.974	9	.928
Difference 2018	.946	9	.642

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table: 2

Table 2 displayed the Shapiro-Wilk test for Normality value is 0.539, .928 and .642 > 0.05. It means the sample is normally distributed.

Paired Samples Test 2016

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	AR Before Dividend - AR After Dividend	-.00800	1.08270	.36090	-.84023	.82423	-.022	8	.983

Paired Samples Test 2017

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Before Dividend - After Dividend	-.187000	1.595624	.531875	-1.413505	1.039505	-.352	8	.734

Paired Samples Test 2018

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Before Dividend - After Dividend	.10500	1.05760	.35253	-.70794	.91794	.298	8	.773

Table: 3

*AR is Abnormal Return

Result of paired sample t-test 2016 is 0.983, 2017 is 0.734 and 2017 is 0.773. Under paired sample t-test it's found that result of t-test H0 is accepted i.e. there is no significant difference between abnormal return before and after announcement of dividend. For 2016 t (8)=-0.22, p=0.983, for 2017 t(8)=-0.352, p=0.734 and for 2018 t(8)=0.298, p=0.773. Correlation score between dividend announced and share price is 1. Share prices and announced dividend is perfectly correlated. It can be concluded that market value cannot be judged by only by the announcement of dividend.

7. Conclusions

There are multiple micro and macro economic factors that affect the market value of the organization. Savita (2014) concluded that abnormal returns not affect significantly the share prices of the shares. Swarnalatha (2014) in the study stated that abnormal return affects the value of the firm.

Between these contradictory researches it may be possible that there are some companies are less exposed to those variables that are more effective for the others. It needs a detailed research to create a segment of companies for whom abnormal dividend can be a variable that affects their market value.

8. Reference

1. *Chelimo, J. K. and Kiprop, S. K. . Effect of Dividend Policy on Share Price Performance: A Case of Listed Insurance Companies at the Nairobi Securities Exchange, Kenya. International Journal of Accounting, Finance and Risk Management. Vol. 2, No. 3, 2017, pp. 98-106. doi: 10.11648/j.ijafrm.20170203.12*
2. *Bhatt, Pushpa and JK, Sumangala (July 2012). Impact of Earnings per share on Market Value of an equity share: An Empirical study in Indian Capital Market. Journal of Finance, Accounting and Management 3(2). PP1-14*
3. *Bhattacharya, S. (1979). Imperfect information, dividend policy, and "the bird in the hand" fallacy. Bell journal of economics, 10(1), 259-270.*
4. *Black, F. (1976). The dividend puzzle. Journal of portfolio management, 2(2), 5-8.*
5. *Fama, Eugene F. (1965) Random Walks in Stock Market Prices. Financial Analysts Journal Vol. 21, No. 5 (Sep. - Oct., 1965), pp. 55-59*
6. *Fama, Eugene F. (December 1991) Efficient Capital Markets: II. THE JOURNAL OF FINANCE VOL. XLVI, NO. 5, PP1575-1617*
7. *Gordon, M. J. (1962). The investment, Financing and Valuation of Corporation. Irwin: McGraw Hill Co.*
8. *India 5 Year Government Bond - LDBMKIN-05Y Overview - MarketWatch. (n.d.). Retrieved from https://www.marketwatch.com/investing/bond/ldbmkin-05y?countrycode=bx*
9. *Inflation rate in India 2010-2022 | Statista. (2018, April). Retrieved from https://www.statista.com/statistics/271322/inflation-rate-in-india/*
10. *Kandpal, Vinay and Kavidayal, P.C. (January 2015). A Study Of Dividend Policy And Its Effect On Market Value Of Shares Of Selected Banks In India. IOSR Journal of Business and Management (IOSR-JBM) Volume 17, Issue 1.Ver. I, 1-44. DOI: 10.9790/487X-17114144*
11. *Kaźmierska-Jóźwiak, B. (2015). Determinants of dividend policy: evidence from polish listed companies. Procedia economics and finance, 23, PP473-477.*
12. *Malhotra, Nidhi and Tandon, Kamini (2013) Determinants of Stock Prices: Empirical Evidence from NSE 100 Companies. IRACST- International Journal of Research in Management & Technology (IJRMT) Vol. 3, No. 3*
13. *Miller, H. Merton and Modigilani, Franco (Oct. 1961). Dividend Policy, Growth, and the Valuation of Shares. The Journal of Business Vol. 34, No. 4. PP 411-433*
14. *Pani, U. (2008). Dividend Policy and Stock Price Behaviour in Indian Corporate Sector: A panel data approach. Retrieved from Indian Institute of Technology: http://ssrn. com/abstract, 1216171.*
15. *Patra, Amalesh and Dhar, Parnam(2017)Impact of Dividend Policy on Shareholders' Value: A Study on Apollo Hospitals Ltd..BIMS Journal of Management Vol 1. Issue 2; January-June 2017.PP11-15*
16. *Savita (2014) DIVIDEND SIGNALING HYPOTHESIS – A CASE STUDY OF BSE SENSEX COMPANIES. Tactful Management Research Journal Vol. 2 , Issue. 4.*
17. *Sulaiman, Luqman Adedamola and Migiro, Stephen Oseko (2015). Effect of dividend decision on stock price changes: further Nigerian evidence. Investment Management and Financial Innovation 12(1), PP 330-337.*
18. *Swarnalatha, C. (2014). A Study on Impact of Dividend on Nifty Bank Stocks. PARIPEX - INDIAN JOURNAL OF RESEARCH Volume : 3 | Issue : 4*
19. *Walter, J. E. (1963). Dividend policy: its influence on the value of the enterprise. The Journal of Finance, 18(2), 280-291.*