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"Testing Relevance Theory on 10 Equity Stocks"

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***ABSTRACT**: This study examines the relevance theory by using the Gordon's and Walter's models. The Gordon model (also known as the dividend discount model) and Walter's model is used to establish the relationship between dividend payout and share prices of the company by equating the present dividend payout to the future stock prices. Pattern study technique is used to study the price movement of the stock and the impact of dividend payout on the share prices by analyzing the prices prior and post dividend pay- out. The stock prices grows and falls in the same rate as the dividend. The relevance theory states that if the firm is in growth state i.e., if share is on rise, it must not pay dividend and rather retain earnings to further grow. Similarly, if it is on decline state i.e., if share price is falling, it must distribute dividends to the investors. This relevance theory holds well on all the 10 above companies whose stock prices before and after dividend payout were tested and analyzed.*

***KEYWORDS:** Relevance Theory, Equity Stock, Dividend pay-out study*

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I. INTRODUCTION:

Walter's Model: According to the **Walter's Model**, given by Prof. James E. Walter, the dividends are considered and have effect on the firm's share prices. Also, the investment policy is dependent on the dividend policy. Walter's Model shows the relationship between the return on investments or internal rate of return (r) and the cost of capital (K). The choice of dividend policy affects the overall value of the firm.

Gordon's Model: The Dividend Capitalization Model is used to study the effects of dividend policy on a stock price of the firm. Gordon's Model assumes that the investors are risk averse i.e. not willing to take risks and prefers certain returns to uncertain returns. Therefore, they put a premium on a certain return and a discount on the uncertain returns. The investors prefer current dividends to avoid risk; here the risk is the possibility of not getting the returns from the investments.

II. REVIEW OF LITERATURE :

1. Low-Frequency Movements in Stock Prices: A State-Space Decomposition (Balke, 2002):In this paper they have used state- space model to identify the relationship between price-dividend ratio, long- term and short-term interest rate, real dividend growth and inflation. The merit of this approach is that it shows the low, frequency movements present in the data. When we have excess stock return bit not real dividend growth, excess stocks return become an important contribution to stock price movements.
2. Market Response to Subsequent Dividend Actions of Dividend-Initiating and -Omitting Firms (Rimbey, 1992):The paper shows how a company's share prices move in the opposite direction which is already predicted upon the announcement of a major dividend policy change. Investors' uncertainty may also stem from a lack of information reaching the marketplace.
3. Tests of Dividend Signaling Using the Marsh-Merton Model: A Generalized Friction Approach (Kao, 1994):The paper uses the MARSH- MERTON model to test the effects of dividend. This friction method provides reliable estimates of the relationship between the dividends and the earnings of the company. After solving the estimation problem, this model establishes a positive relationship between the unexpected changes in dividends and earnings. These factors are correlated with the company's attributes.
4. Stock Prices and Fundamentals (Heaton, 1999):This paper uses the OLG model to focus on two aspects of risk that is the market participation rate and the degree of diversification. This paper concludes that households have majorly diversified their portfolios by selling individual stock and buying mutual funds. Using the calibrated Gordon Growth model, they have found that the change in expected returns goes at vast halfway forwards justifying the current high level of the price-dividend rates in the U.S stock market.
5. The law and economics of dividend policy(Fischel, 1981):This paper upon relying on legal literature and economies has concluded that:

- Dividend policy is likely to have an effect on the share prices, independent of their earnings.

- Dividend policy is determined after considering the conflicts of interest and detriment of the shareholders.
- Dividend decision will sometimes benefit the shareholders by clarifying the policy taken by reducing the conflict of interest between the shareholders and the managers.

III. RESEARCH DESIGN:

a. Scope Of Study: For the purpose of this research we have considered the stock prices of ten public limited companies for 2018 and three immediate preceding years 2018 (i.e., 2017, 2016). The data we will be looking into are the stock prices prior and post the company's dividend pay-out. We have considered both interim dividend , final dividend and the pattern of the average price movement of these companies namely Reliance Industries Limited (RIL), Maruti Suzuki, Bharat Petroleum Corporation Limited (BPCL), Hindustan Unilever Limited (HUL), HCL Technologies Limited, and Hero Motocorp Limited.

b. Statement Of Problem: Financial Analysis theories remain part of basics when it comes to academic study of the stock markets, however the implementation of the theories in real life is always a question to be tested. Our study is based on the same principle trying to test the implications of relevance theory in real stock lifespan.

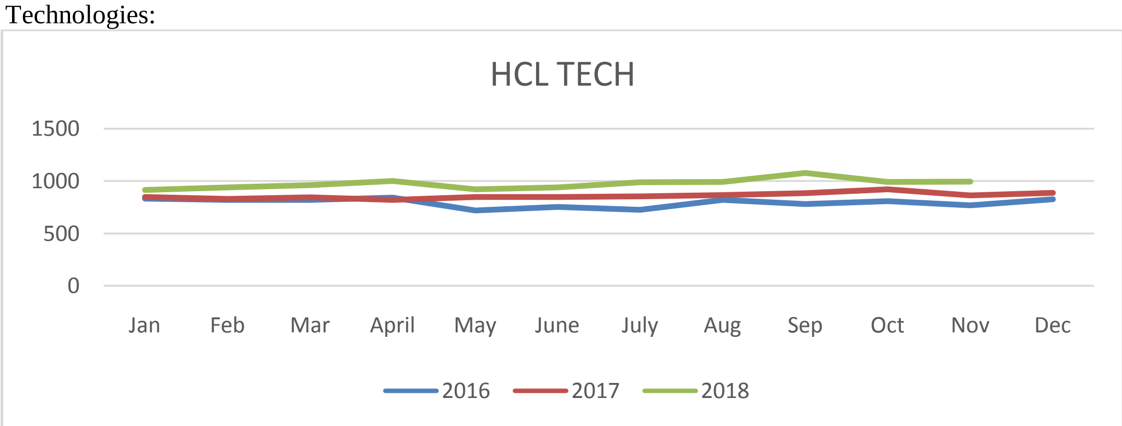
c. Objectives:
- Relevance of Gordon's and Walter's theory.
- Impact of relevance theory on investor's mind.
- To test and understand the implication and implementation of financial theory in real life scenario of 10 companies for 3 years.

d. Sources Of Data:
Secondary data has been taken for the purpose of this study. The equity stock data has been collected from the following websites:Investopedia, Yahoo Finance ,Bloomberg
.
e. Data Analysis Tools :
Excel: Pattern Study
f. Expected Outcome:
Relevance theory {Gordon and Walter's model} holds true for the selected 6 equity stock of publicly limited companies .

g. Limitations:
- Only the stocks of 10 companies are tested. Scope could be made larger with more time and resources.
- Just the stock prices of 3 years are studied.
- Other factors impacting stock prices such as brand value of the company, investors' loyalty, diversification of the company into different services and products are not considered which are invariable and immeasurable.

IV. DATA ANALYSIS AND INTERPRETATION:

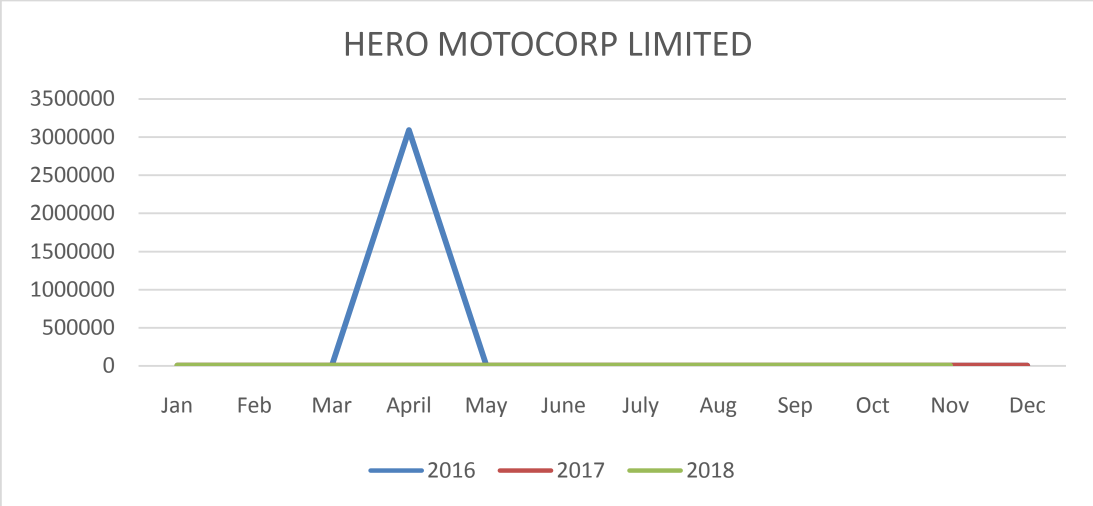
Hcl Technologies:



Interpretation:

- The company was on the growth state before dividend was paid on 27/1/16. Post dividend payment the share prices started to go up. The next dividend was paid on 27/10/16 and the shares were in decline state. Yet again, relevance heart holds in this situation.
- The company was on the decline state before dividend was paid on 1/2/17. Post dividend payment the share prices started to go down. The next dividend was paid on 1/11/17 and the shares were in growth state. Yet again, relevance heart holds in this situation.
- The company was on the decline state before dividend was paid on 29/1/18. Post dividend payment the share prices started to go down. The next dividend was paid on 30/10/18 and the shares were in growth state. Yet again, relevance heart holds in this situation.

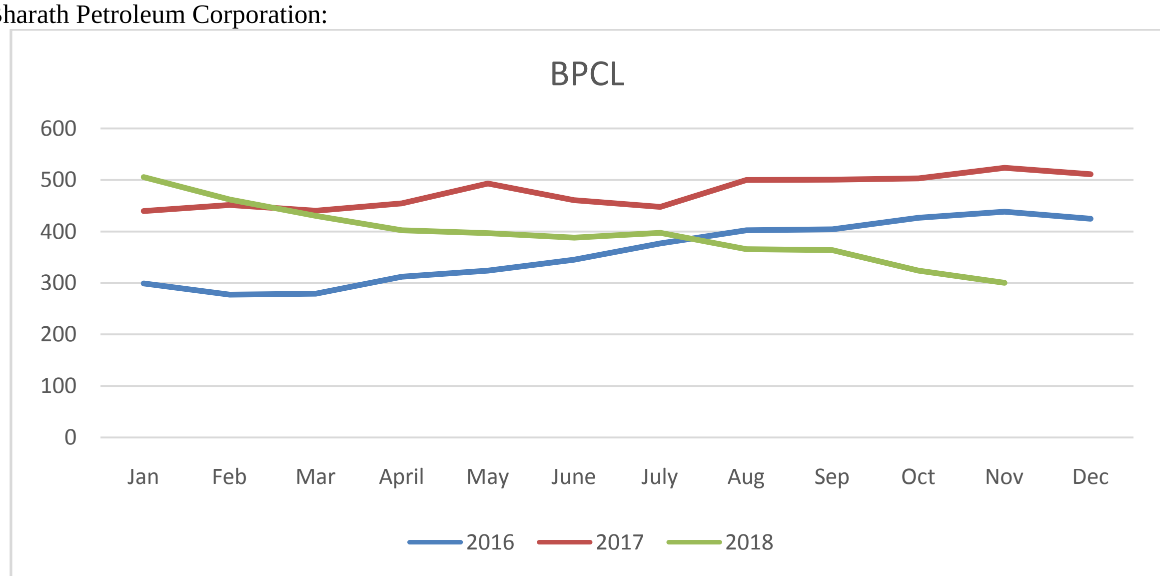
Hero Motocorp Limited:



Interpretation:

- The company was on the growth state before dividend was paid on 10/3/2016.Post dividend payment, the share prices started to go down. The next dividend was paid on 5/5/2016 and the shares were in growth state. Yet again, relevance theory holds in this situation.
- The company was on the growth state before dividend was paid on 7/3/17.Post dividend payment, the share prices started to go down. The next dividend was paid on 11/5/17 and the shares were in growth state. Yet again, relevance theory holds in this situation.
- The company was on the growth state before dividend was paid on 6/2/18.Post dividend payment, the share prices started to go down. The next dividend was paid on 2/5/18 and the shares were in growth state. Yet again, relevance theory holds in this situation.

Bharath Petroleum Corporation:

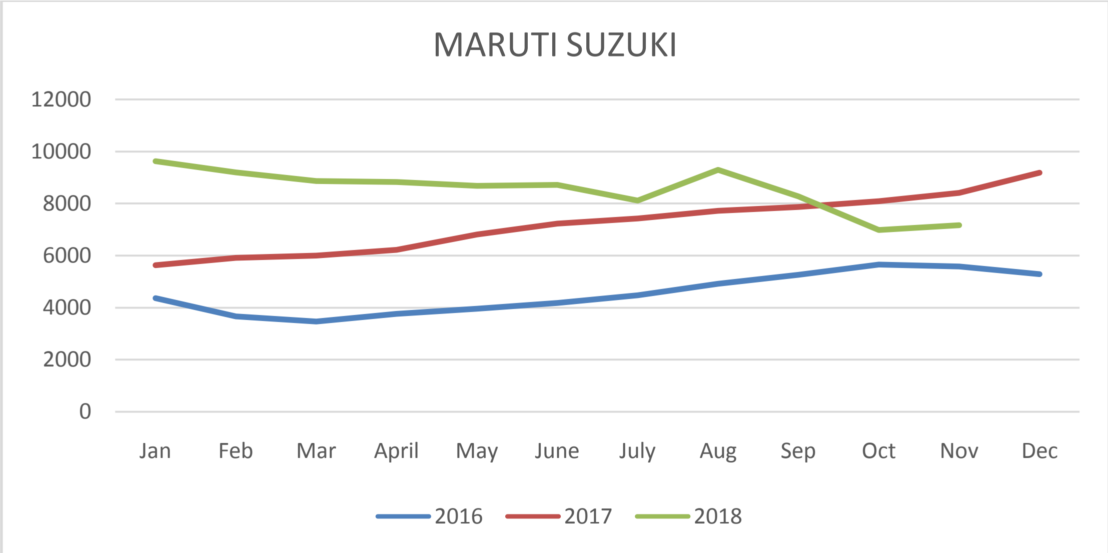


Interpretation:

- Bharat Petroleum Corporation Limited was on the growth state before the dividend was paid on 31/8/2018;22/2/2018;8/6/2017;28/2/2017; Post dividend, the share prices started to go down.
- Bharat Petroleum Corporation Limited was on the decline state before the dividend was paid on 24/3/2017;3/3/2016;2/2/2016;Post dividend the share prices started to go up.

Hence the Relevance theory holds in the above situations.

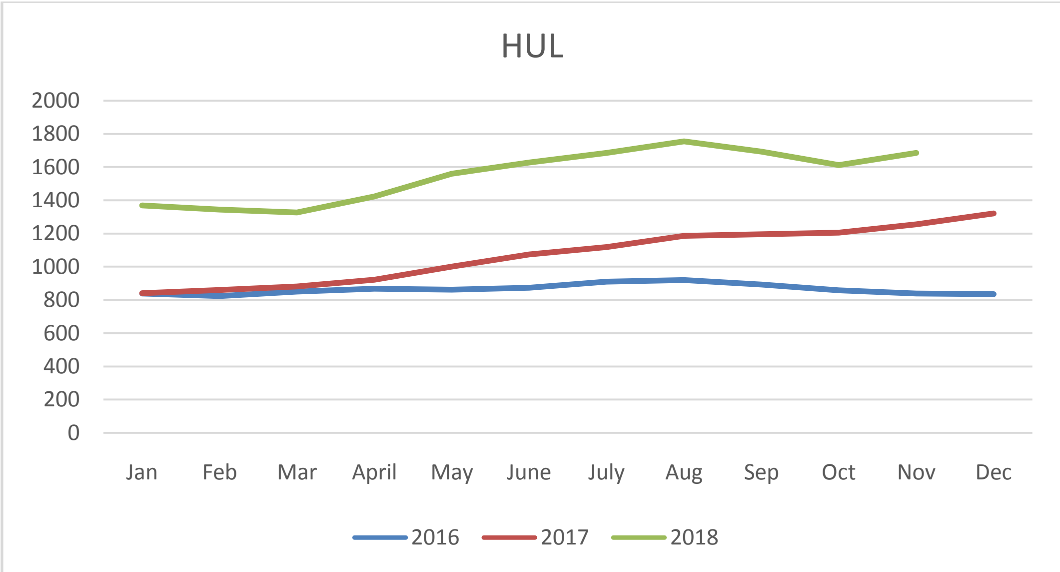
Maruti Suzuki:



Interpretation:

Maruti Suzuki was on the decline state before the dividend was paid on14/8/2018;24/8/2017;31/8/2016.Post dividend the share prices started to go up. Hence the Relevance theory holds the above situation.

Hindusthan Unilever Limited:

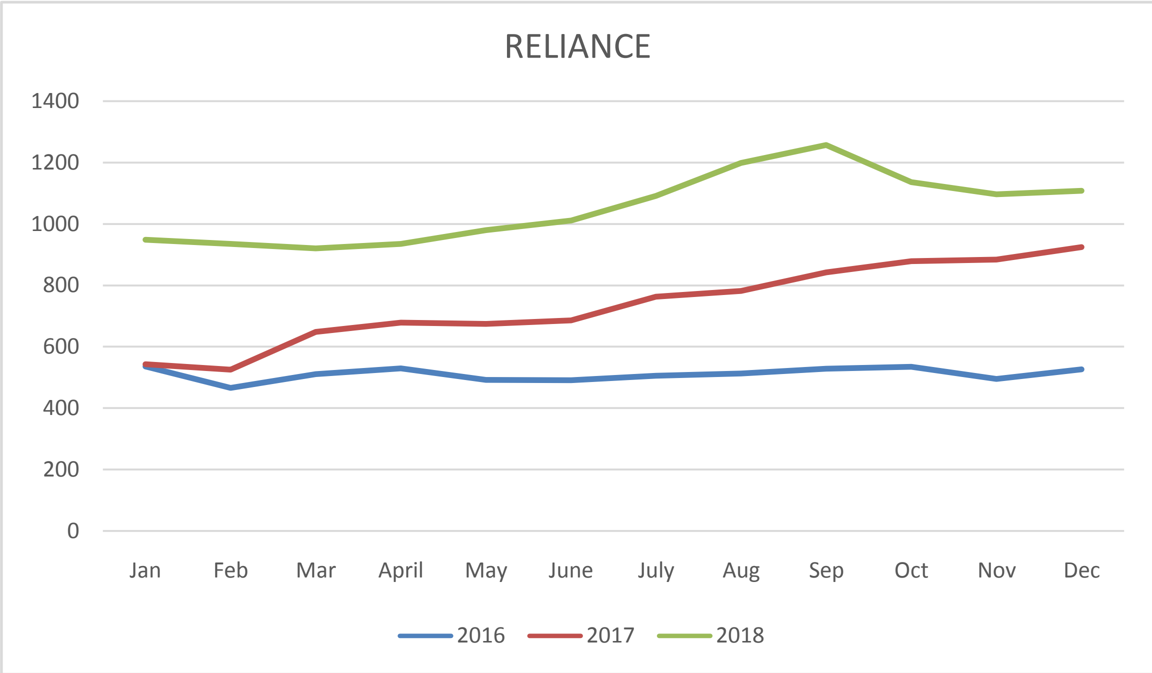


Interpretation:

- The company was in decline state before dividend was paid on 22/6/17. Post dividend payment the share prices started to go down. The next dividend was paid on 1/11/17 and the shares were in growth state. Yet again, relevance theory holds in this situation.
- The company was in growth state before dividend was paid on 22/6/16. Post dividend payment the share prices started to go up. The next dividend was paid on 1/11/16 and the shares were in decline state. Yet again, relevance theory holds in this situation.

- The company was in decline state before dividend was paid on 25/5/18. Post dividend payment the share prices started to go down. The next dividend was paid on 21/6/18 and the shares were in growth state. Yet again, relevance theory holds in this situation.

Reliance:



Interpretation:

- In 2016, the dividend was paid on 17th March. Before the payment of dividend, the share prices were in growth state, however after payment, they remained constant.
- In 2017, the dividend was paid on 13th July. Before the payment of dividend, the share prices were increasing and after payment they remained constant.
- In 2018, the dividend was paid on 27th June. Before the payment of dividend, the share prices were decreasing, however after payment the share prices dropped down.

Therefore relevance theory holds true in all the above cases.

V. FINDINGS AND SUGGESTIONS :

COMPANIES	RELEVANCE THEORY HOLDS TRUE OR NOT
RELIANCE	Holds true
HINDUSTHAN UNILEVER LIMITED	Holds true
HCL TECH	Holds true
HERO MOTOCORP LIMITED	Holds true
BHARATH PETROLEUM CORPORATION LIMITED	Holds true
MARUTI SUZUKI	Holds true

The relevance theory states that if the firm is in growth state i.e., if share is on rise, it must not pay dividend and rather retain earnings to further grow. Similarly, if it is on decline state i.e., if share price is falling, it must distribute dividends to the investors.Analyzing the above mentioned companies under the light of Relevance Theory, it was found that there existed a relationship between dividend payout and share price.Thus Relevance Theory holds in case of all the mentioned companies.

VI. CONCLUSION:

Walter model and Gordon model are advanced theories examining the relationship between the Dividends and the price of the shares.The relevance theory states that if the firm is in growth state i.e., if share is on rise, it must not pay dividend and rather retain earnings to further grow. Similarly, if it is on decline state i.e., if share price is falling, it must distribute dividends to the investors.

Considering the technical analysis of 10 companies namely HUL, Bharat Petroleum, Reliance, HCL, Hero Motocorp, and Maruti Suzuki and their average stock price for 3years, it was found that when dividend is declared in decline stage the share price tend to go up and when the dividend is declared in growth stage the share prices are expected to go up.

Hence we can conclude that the Relevance Theory holds and there exists a relationship between dividends declared and prices of shares.

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