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Impact of Cash Dividends and Retained Earnings on Stock Price A Comparative Study of High and Low Growth of Firms

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Abstract
"The purpose of this study is to examine the empirical relationship between cash dividend, retained earnings and the stock prices. Different non- financial firms listed in Pakistan stock exchange are selected for this analysis over the period from 2009 to 2013. The balanced panel data is used to examine the relationship between cash dividend, retained earnings and the stock prices. The results of this study shows that in low growth firms there is a negative relationship between dividend yields per share and stock price and there is also negative relationship between retained earnings and stock price. And the results of this study also shows that in high growth firms there is a negative relationship between dividend yield per share and stock price and there is a positive relationship between retained earnings and stock price. This study contribute to the existing literature of Pakistan because this area is uncovered".

INTRODUCTION

A firm's long term financial strategy is its dividend policy with respects to determining how much income is to retain for investment in the firm as against paying dividend to investors. It leads to splitting up of earnings between reinvestment in the firm and dividend payment to stockholders. There is no bankruptcy and transaction cost related with retained income (Altman, 1993). Therefore, retained earnings are considered as a major source of finance for firms. Different weights are attached to the earnings that are distributed as cash dividends and to the retained earnings that are reserved for prospect investment in high and low growth firms. High growth Firms pay less cash dividend due to higher growth opportunities and reinvest in business whereas firms low in growth level pay more as cash dividend. Empirical results reveal that earnings retained by a firm have significant impact on stock prices of companies so it is always a desirable area of investigation by researchers to examine the behavior of price movements across different growth levels of firms.

"The dynamic discussion about prices of stocks was started by John Burr Willams in 1938 after publication of his work. He was the first who proposed about the dividend policy as the determinant of stock prices instead of the earnings of the companies. Early researchers examined the foundations of dividend policy laid by Williams. Walter, Lintner, Friend & Puckett acknowledged the considerations of the Williams whereas Miller & Modigliani provided dissimilar interpretations about dividend policy and its impact on prices. Although there are wide varieties of models and extensive literature on this debate yet the discussion on this area is still open. No specific model has been developed by practitioners and Scholars for predicting the accurate movements of the stock prices in the stock exchanges. After the work of Williams, Miller & Modigliani proposed dividend irrelevance theory, which posits that value of the company is irrelevant of its dividend policy rather it depends on its earning power of the firm. But Jensen & Meckling argued that in agency cost considerations dividends are important for the investors. They proposed that managerial efficiency and discipline is maintained through stable dividend policy within the business, therefore higher dividend-paying firm are being preferred by the investors. Additionally, dividends deliver signals to stock market about the future projections of the firm (Miller & Rock). Higher dividends are taken as good signals by some investors because they consider these firms as highly profitable but other might take it as bad signals because they consider that a company doesn't have profitable future investment opportunities so it is paying higher dividends and vice versa. In both cases prices of stocks will be affected differently. Due to asymmetric information, signaling mechanism works in both sides (positive and negative). These signals prevail in the stock market because investors have less content of information as compared to managers who have better information about the existing performance and future projections of the business. Consequently if the mangers are self-assured and certain regarding the future projections of the corporation, more cash would be distributed as dividends by the managers to the investors and if they are uncertain, cash would be retained for contingencies".

"Clientele effect is one of the important reasons for the investor to prefer dividend-paying firms. It posits that different investors have different views and preferences about policies of dividends. Therefore reputable firms always consider their specific clientele of investor while making dividend policies and retention policies".

"On the other hand earnings retained by the firms are the revenues of the business that are invested back in the business. Pardhan argued that firms who retain a higher portion of their income are in high growth level and these firms have good future prospects. So earnings retained by the firms are the important determinant of stock value. Some researchers established a strong effect of the retained earnings on the prices. Walter proposed that in case of growth firms, the value of the firm increases by paying less dividends and retaining higher portion of earnings. On the other hand it is suggested by Miller & Modigliani that the value of the firm is not influenced by dividends and retained earnings. The concepts, theories and Models regarding this issue are complex and challenging to be selected to address this issue. The purpose of this research is to solve this puzzle by examining the relative importance of dividends and retained earnings in high growth firms and low growth firms and its influence on the stock prices of non-financial sector of KSE. With the help of this research investors and practitioners would be able to comprehend the phenomenon of this subject through empirical evidence in true sense".

PROBLEM STATEMENT

"Numerous researches have been conducted on relative importance of retained earnings and dividends and its relationship with stock price in different parts of world but in Pakistani stock market this area is still it a dearth or untapped as regard with different growth levels of firms and the relative importance of cash dividends and retained earnings. Thus comparative analysis is desired to examine the impact of retained earnings and cash dividends on stock prices of high growth and low growth firms of Pakistan".

RESEARCH OBJECTIVES

"The research focused on the following objectives:-

1. To examine the relationship between retained earnings and stock prices of low and high growth firms.
2. To investigate the association of cash dividends with stock prices of firms with high and low growth opportunities.
3. To make the comparative analysis of high growth firms and low growth firms based on relationship among retained earnings, cash dividends and stock prices.
4. To examine relative importance of cash dividends and retained earnings in high and low growth firms".

RESEARCH QUESTIONS

"This study address empirically the following range of questions:

(i) Is there any significant relationship between retained earnings and stock prices of high and low Growth firms?
(ii) Is there any significant relationship between cash dividend and stock prices of these firms?
(iii) Do these companies differ in the magnitude of their impact on stock prices?
(iv) What is the relative importance of cash dividends and retained earnings in high and low growth firms?

SIGNIFICANCE OF THE STUDY

"To finance the growth of any firm Retained Earnings are the most economical and important sources. Previous studies show that higher returns and low dividends are being given to investors by high growth firms due to reinvestment of their earnings. Whereas low growth firms pay high dividend and low return due to less investment opportunities (Gilchrist and Himmelberg, 1995).Reviews indicate that the impact of retained earnings on stock prices in Pakistani equity markets has not been investigated in detail. Few researches are available and those studies show conflicting results' regarding the relative impact of retained earnings and dividends in determining stock prices due to investor's varying behaviors. Pakistan is an important emerging market of south Asia and is located at cross roads of central Asia, Middle East and emerging giants India and china so it is desirable to be able to investigate this relationship across different growth levels of firms in Pakistani equity market".

"This research enables both investors and corporate managers to make investment and financing decision. Investors can make effective investment strategies on the basis of firm's decisions (both high and low growth) regarding retained earnings and dividend policies. This study helps portfolio managers in the allocation and valuation of stock price movements. Corporate managers can also use this information to judge reactions of investors on different accounting information and make better decisions regarding dividend policy and retention. Besides, this study can also be used as a guideline for the future researcher and investor to review and construct a profitable portfolio".

Literature review

"Cash dividend is a payment paid by the firms to their shareholders when the firms earned profits .when a firms earn profit, it can avail the growth opportunities by re investing the surplus funds into these opportunities. It also has to pay some proportion of its earning to its shareholders as cash dividends. Making decision about how much proportion of earnings should be paid to the shareholders in form of cash dividends and how much should be retained is called dividend policy. Companies should effectively manage their dividend policy to attract the potential investors and increase the trade of their stocks in the capital market.

"Dividend policy of the firm has grab the lot of attention of researchers because it plays a pivotal role regarding how much earning should be retained and how much should be paid as dividend .Decision about how much paid as dividend and how much retained generate the signal in the market regarding the firm's high and low growth opportunities. A lot of discussion has revolved around how cash dividend and retained earnings effect the share price in the market. If the firms increased proportion of their retained earnings, how this change in retained earnings effect the market value of the share .There are different evidence about an increase in the proportion of retained earnings have impact on the price of the share .Most researcher agreed that an increase in the proportion of retained earnings leads to decrease in the market value of the share. Gordon explain this by describing it such as increasing in the proportion of retained profit means higher dividends in form of the cash in the future .It means higher the retained earnings, higher the uncertainty about actual amount in future .Investors are different in term of taking risk .Investors who are risk averts avoid these uncertainties, they prefer cash dividends in present than higher cash dividends in future. But on the other hand Miller and Modigliani revealed that there dividend policy of the firm don not have any effect on the value of the firm , any change in the dividend policy do not lead to any change in the market value of the stock and overall value of the firm".

"Although a lot of literature exist on dividend policy and the effect of changes in payout ratio and retained earnings on the stock price and on the overall value of the firm. Black (1976) describe that dividend policy is a puzzle regarding forecasting the value of the firm and strategic development process. Retained earnings states that the ratio of net earnings not paid out as dividends but preserve by the company to be reversion in its basic business, or to expend debt. It is also known as accumulated earnings, accumulated profit, accumulated income, accumulated surplus, earned surplus, undistributed earnings or undivided profits. Earning produced by the company that are not give out to the shareholders as dividends but are either reinvested in the core business or hold as a reserve for particular business goals, aims or objectives. Companies use it in different fund ways in which they can grow, be better organized or well planned or contribute to the mission of the company. The portion of the earning which is not distributed in the form of dividend to the shareholders it is retained for the future growth of the organization. And the purpose behind that if the company has more retains it has more chances for being efficient and expansion. The manager of the organization or company desire higher earnings retention ratio. Many of investors prefer to buy stocks of companies with a high level of retained earnings. And other investors may prefer to buy stocks that pay large dividends. Many of research indicate that when share prices are related to the current dividend and retained earnings, higher dividend are related with higher price earnings ratio. Retained earnings have significant impact on the determination of share price. If the proportion of the retained earnings increases the share price may also increase in the market and vice versa. There is no uniform study about the effects of retained earnings and stock prices".

"Michal (1979) and Baker (1988) state that dividend policy vary from industry to industry. The discussion about stock prices variation due to declaration of dividends also has revealed by Elton and Gruber (1970) .According to their study stock price fall on the ex-dividend day by the amount that is smaller than the amount paid as dividend. The stock price behavior on the ex-dividend day have also been studied by the Milonas and Travlos (2001). They analyzed that stock price fall on ex- dividend day less than the dividend paid.Bali and Hite (1998) provide the evidence that tax is irrelevant in the dividend payments and stock price fall on the ex-dividend day that is not equal to the amount of the dividend paid. Batchelor and Orakcioglu (1995) revealed that there is a significant relationship between dividend payments and movements in the stock prices .It revealed that prices of the shares increase when paid dividend increase and stock price decrease when dividend payout ratio decreased".

"The relationship between stock prices, retained earnings and dividend also find by the Power and MacDonald (1995).Their results are similar as the results of the studies of Harkavy (1953); Gordon (1959); and Friend and Puckett (1964). The result of their studies was that the price of the stock of those firms which maintain large proportion of their profit as retained earnings than the price of the stock of the firms which maintain low proportion of their profit as retained earnings. Marsh and Power (1999) has also studied the effect of dividend on the stock prices. Their study also find a significant relationship between dividend and stock price"

"Pradhan (2003) also find a relationship between retained earnings, dividend and stock price in Nepal context. Azhagaiah and Sabari (2008) studied the effect of dividend and retained earnings on the stock prices .Results shows that retained earnings and dividend are the major determinants of a stock price".

"The effect of changes in announcement of dividends on the stock price .The changes in dividend announcement positively affect he stock prices".

"Khan (2009) studied the effect of cash dividend and retained earnings on the stock prices in the context of Dhaka Stock Exchange and revealed that the effect of cash dividend on stock price is more than the effect of the retained earnings".

"Salih (2010) 'study provide the empirical evidence about effect of dividend policy on the firm's value. The results shows that dividend policy have a significant effect on the firms over all policy".

Hypothesis

"The present study is conduct to find out the relationship between retained earnings, cash dividend and stock price in the Pakistan context .Although a lot of research has been explore the relationship between retained earnings, cash dividend and stock price but in Pakistan this area is still uncovered.

H1: There is a significant relationship between retained earnings per share and stock price.

H2: There is significant relationship between cash dividend per share and stock price".

Methodology

Sample of the study

"Sample have been taken from the listed companies in the Pakistan stock Exchange during the period from 2010 to 2015 .Using convenient sampling, 50 companies have been selected to find out the empirical relationship between retained earnings, cash dividends and stock prices**.** This study includes the companies both paying dividend and those which are no paying cash dividend"**.**

Statistical approach

"Cross sectional and time series data have been to find out the empirical relationship between retained earnings, cash dividends and stock price. The relation coefficient have been to find the direction of the relationship between independent and dependent variables. Eviews have been used to run the multiple regression in order to obtain the results".

Variables Definition

"The variables of the relationship between retained earnings, cash dividend and stock prices are derived from the studies of a number of the previous researchers. In this study stock price is dependent variable and retained earnings and cash dividend are independent variables".

Dependent Variable

Stock Price

"This variable is defined as the highest amount of the stock in which someone is willing to pay or the lowest amount that it can be bought for. It is obtain directly from the financial statement of the firm. It is the closing price at the end of financial year".

Independent variable

Retained Earnings per share

"This variable state that the retained earnings are divided by the number of shares outstanding. We can describe it in algebraic form as follows:

EPS = RE / # Shares

RE = Retained earning

EPS = Earnings per Share

Shares = No. of Outstanding Shares"

Cash Dividend per Share

"To measure this variable, DPS is the sum of declared dividend for every ordinary share issued. Cash dividend paid to stockholders are divided by the no. of shares outstanding. To measure the effect of cash dividend we have used dividend yield because it is the best measure of effect of cash dividend on the stock price .It can be represented in algebraic form as follows

Dividend Yield =Cash dividend /stock price"

Regression model

"To examining the empirical relationship between stock price, cash dividend and retained earnings comparatively analysis of high and low growth firms in the Pakistan context, used the regression model. This model is take on support of previous studies Harkavy (1953),Friend and Puckett (1964),Naamon (1989),Nishat (1992),Power and MacDonald (1995),Pradhan (2003)and Khan (2009). We used this model to measure effect of two independent variables (Cash dividend per and retained earnings per share) on the dependent variable (Stock price per share).We analyzed the relationship between dependent and independent variables by comparing high and low growth firms . So we take this same model two time one for low growth firms and high growth firms".

$SPit=\beta0+\beta1DYit+\beta2REPSit+eit$

Where SP denotes the stock price per share, DY is the dividend yield per share, REPS denotes retained earnings per share.

Results of the Hypothesis
Low growth firms
Table 1: Summary of descriptive statistics of all the variables

	Stock Price per share	Dividend Yield per share	Retained Earnings Per Share
Mean	241.1267	0.052773	9.349077
Median	22.29000	0.021005	6.324452
Maximum	9300.000	0.897260	64.54640
Minimum	0.410000	0.000000	-5.309838
Standard Deviation	1063.432	0.110381	10.61430

"The **1** table shows the summary of the mean, median, maximum, minimum value, standard deviation of all the variables regarding low growth firms that are used in this study**.**

In table **1** stock price is the dependent variable. Its value range from 0.4 minimum (which shows that the stock price of some firms low than their par value) to maximum 9300, with mean value 241.12 shows that average low growth firms have stock price greater than their par value .Standard deviation 1063 showing high variation between stock prices of different firms".

"Dividend yield is the first independent variable its value range from minimum 0.00 maximum 0.89 which shows that some firms did not pay dividend at all and some firms pay dividend 0.89, mean value 0.05 and standard deviation is 0.11 which shows high variation in terms of cash dividend of different firms".

"Retained earnings is second independent variable, its value range from minimum -5. 309 to maximum 64.54 shows that some firms bear losses and did not retained earnings at all and some firms retained sufficient amount of retained earnings. Standard deviation is 10.61 which shows the variation between retained of low growth firms".

Correlation
Table 2-Relationship between dependent and independent variables

	Stock Price	Dividend Yield	Retained Earnings Per Share
Stock Price	1	-0.0489374444	-0.0782175655
Dividend Yield	-0.0489374444	1	-0.0919009447
Retained Earnings Per Share	-0.0782175655	0.0919009447	1

"The result shows that dividend yield and stock price have negative relationship whish shows as stock price increase, dividend yield lead to decrease .Results shows that there is inverse relation between retained earnings per share of low growth firms and their stock price per share .When low growth firms have more retained earnings, due to their low growth level this create negative signal to market and their stock lead to decrease".

Hypothesis Testing
"Before discussing the result of hypothesis we again repeat our hypothesis. Hypothesis are 1) to test if there is any significant relationship between cash dividend stock price ,and also 1) if there is any significant relationship between retained earnings and stock price comparatively high and low growth firms. Firstly describe the result separately in term of low growth firms".

Regression results
Table 3-Cofficient and significant values (low growth firms)

Variable	Coefficient	Standard Error	T- Statistics	Probability
C	335.1304	154.9192	2.163260	0.0331
Dividend Yield	-406.0507	1011.237	-0.401539	0.03890
Retained Earning	-7.487040	10.55952	-0.709032	0.0401
R- Squared	0.027876			

"The above table shows the result of hypothesis according to low growth firms. Hypothesis are below
H1: There is significant relationship between retained earnings per share and stock price per share.
The coefficient value (-7.48) shows that there is inverse relationship between retained earnings and stock price and probability value (0.04) shows significance level of relationship.
H2: There is significant relationship between cash dividend per share and stock price per share.
To measure the cash dividend per share as we described above, used the dividend yield per share .The coefficient value (-406) shows that inverse relation between dividend yield per share and stock price per share and probability value (0.03) shows the significance level of relationship".

High Growth Firms

Table 4-Summary of descriptive statistics of all the variables

	Stock Price	Dividend Yield Per Share	Retained Earnings Per Share
Mean	212.5828	0.053928	82.71443
Median	78.72500	0.039708	5.800830
Maximum	2729.480	0.182548	6647.055
Minimum	2.040000	0.000000	-0.312337
Standard Deviation	412.3552	0.050416	667.2024

"The above table shows the descriptive summary of all variables according to high growth firms. Stock Price is the dependent variable. Its value range from minimum 2.040000 which shows that the some company have stock price less than the par value to maximum 2729,with mean value 212.58 showing that average firms have stock price greater than par value. Standard deviation 412.35 shows the high variation between stock prices of different firms.

Dividend yield range from minimum 0.00 which shows that some companies did not pay any dividend at all to maximum 0.182, with mean value 0.0539. Standard deviation 0.0504 shows the variation between dividend yields of different firms.

Retained Earnings per share range from minimum -0.312 which shows that some companies bear loss and did not retained earnings and maximum range from 6647 which shows that some companies have high retained earnings. High growth firms shows that these companies pay low dividend and high retained earnings".

Correlation results

Table 5-Relationship between dependent and independent variables

	Stock Price	Dividend Yield Per Share	Retained Earnings Per Share
Stock Price	1	-0.1052210789	0.2030154317
Dividend Yield Per Share	-0.1052210789	1	0.934299641
Retained Earnings Per Share	0.2030154317	0.0934299641	1

"The above table shows the relationship between dependent and independent variable. Dividend yield per share shows the negative relationship with stock price per share".

"And in this above table Retained earnings per share of high growth firms shows the positive with their stock price per share. The results shows that when a firms have high retained earnings its means these firms have more opportunities to invest and generate positive signal in the market which leads to high stock price".

Hypothesis testing

Table 6- coefficient and significant values

Variable	Coefficient	Standard Error	T- Statistics	Probability
C	236.5529	60.91631	3.883245	0.0002
Dividend Yield Per Share	-710.9770	816.9476	-0.870285	0.0463
Retained Earnings Per Share	0.120232	0.061682	1.949207	0.0442

R-Squared 0.048720

"This table shows the hypothesis results of our study. The f hypothesis of our study is there is a significant relationship between stock price and cash dividend. This table shows that there is negative relationship between dividend yield per share and stock price and probability value shows the significant level of this hypothesis. The hypothesis of our study is there is a significant relationship between stock price and retained earnings. This study shows that there is a positive relationship between stock price and retained earnings and probability value shows the significance level of this hypothesis".

Summary of results and conclusion

"This study is conducted to find out relationship between cash dividend, retained earnings and stock price, a comparative analysis of high and low growth firms in Pakistan. The results shows that there is negative relationship between dividend yield per share and stock price per share in both low and high growth firms. While there is inverse relationship between retained earnings and stock price in low growth firms. While there is positive relationship between retained earnings and stock price in high growth firms .This shows that when high growth firms retained more earnings, investors perceives that these firms have investing opportunities so more investors invest in these firms and due this the stock price of these firms lead to increase. While in low growth firms stock price move opposite direction of retained earnings".

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