

WHAT DICTATES THE DIVIDEND-PAYOUT DECISION OF CORPORATIONS? A CASE STUDY OF FIRMS LISTED AT KARACHI STOCK EXCHANGE

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***Abstract.** Dividend decision is one of the very crucial factors that have a bearing on the long-term value of a firm. According to the traditional approach, firms that pay larger dividends happen to have escalated share prices compared to those that pay lower or no dividends. There have been previous studies conducted to explore what factors make a firm pay or ignore paying dividends for a given year. However, no consensus has been achieved so far by the researchers as to what really determines a firm's dividend payout decision. This study is an attempt to re-examine some of the very major considerations a firm takes into account while deciding about the declaration, or otherwise, of dividends. To serve the purpose, the required financial information was obtained from 'Financial Statement Analysis' of Non-financial companies published by the State Bank of Pakistan. Sixty one (61) firms were included in the sample having thorough six year financial data ranging from 2006 to 2011 which led to a total of 366 firm-year observations. Results of the study showed that out of the factors analyzed, Liquidity and Profitability had a significant association with the dividend payout policy of firms in the sample. Hence, it may be concluded that the two mentioned factors are the major determinants of a firm's dividend policy.*

Key words: Dividend Payout Policy, Leverage, Liquidity, Profitability, Firm Size, Sales Growth

Introduction

What affects the dividend policy of corporations? Financial researchers have time and again probed into the question to find the answer. However, there is no general agreement as to what really dictates a firm's dividend payout policy.

Miller and Modigliani (1961), for instance, argue that a firm's dividend policy is totally irrelevant and has no impact on the firm's value or the market price of the firm's stock. On the other hand, many researchers are of the opinion that dividend policy may positively affect a firm's value. The present study takes the dividend decision as a dependent variable and attempts to explore the most significant explanatory variables that affect the dividend payout decision of corporations.

There has been a great deal of previous work undertaken by various researchers in the field of dividend policy decision. For example, Fama and Babiak (1968) investigated the determinants of dividend policy and found that the net income more explains the dividend decision of corporations than the cash flows. Similarly, Lintner (1956) explored from his work that firms increase their payment of dividends when they see and forecast an increased profitability. Rao and Sarma (1971) also undertook an industry-wide analysis of the determinants of corporate dividend policy and their results were in support of the research once conducted by Lintner. Gordon and Walter (1985) gave the Bird-in-the-Hand theory and argued that rational investors always prefer current dividends over future dividends. Fama and French (2002) found that profitable firms pay higher dividends than less- or non-profitable ones. They also found that firms with high investments have lower dividend payout ratios.

Myers and Frank (2004) also investigated the dividend payout decision of firms and concluded that firms with a higher Price-to Earnings ratio give comparatively more dividends than others. Eriotis (2005) studied the effect of firm size and earnings on the dividend policy of Greek firms and found a significant impact of the explanatory variables on the dividend policy.

Ayub (2005) found a negative relationship between liquidity and dividend policy and a positive association of profitability, insider ownership and retained earnings with the dependent variable. Khan (2006), on the other hand, established a negative association between the dividend payments and ownership concentration of 330 large listed UK firms that he took as a sample. Kumar (2006) studied the dividend policy with respect to corporate governance a company has and found a positive relation of the dividend payment policy with the ownership by corporations and directors. Naeem and Nasr (2007) studied Pakistani firms with regard to their dividend payment policies and noticed that Pakistani companies show reluctance to payment of dividends and that their current dividend payments rely much on the previous dividend payments. Anil and Sujjata (2008) explored that only liquidity and beta were the significant factors that affected the dividend payment decision of Indian Information Technology Sector which they studied from the year 2000 till 2006.

Al-Malkawi (2007) also attempted to determinants of corporate dividend policy and concluded that insider and state ownership of a company's stock has a significant association with the payment of dividends. Asif *et al.* (2011) explored the relationship between leverage and the dividend policy of Pakistani firms for the period 2002-2008 and found a negative relationship between the two. Finally Bose and Husain (2011), in a survey of five sectors of Indian industry, found that most firms increased their profits as their earnings increased and vice versa. Thus, over the past few years, quite a lot of work has been undertaken in an attempt to determine the true factors of corporate dividend policy.

Materials and Methods

This study is aimed at determining the upshot of *Leverage, Profitability, Liquidity, Growth* and *Size* of a firm on its dividend payout policy. Hence, the following research questions are developed for this study: Does increased financial leverage lead to reduced dividend payment by a firm owing to an increased amount of fixed financial charge every year? Do profitable firms pay more dividends to their stockholders? Is the dividend policy of a firm also affected or influenced by its short-term debt-paying ability (liquidity)? Do growing firms pay more dividends? Has the size of a firm any relationship or statistical association with its dividend payment policy? Nonetheless, factors contributing to the dividend payment are investigated for companies listed at Karachi Stock Exchange for a period of six years from 2006 to 2011. The data for this purpose was acquired from an official and legitimate document titled, "*Financial Statement Analysis of Joint Stock Companies Listed on the Karachi Stock Exchange (2006-2011)*", formally published by the Statistics and DWH Department of the State Bank of Pakistan (SBP). Hence the research was entirely based on the *Secondary data*. It should be mentioned that the *financial corporations* like Banking Companies, Insurance Companies, Leasing Companies and Modarabas etc. were not included in this study due to their distinctively dissimilar nature of business in comparison with the *non-financial* business entities.

There were a total of 399 non-financial companies listed on the Karachi Stock Exchange as at December, 2011 as per the analysis published by the State Bank of Pakistan. However, in order to ensure better and significant results, only the firms having complete information available for the six-year period were selected as the sample firms. Hence, there were 61 firms in the sample having thorough six year financial data ranging from 2006 to 2011 which led to a total of 366 firm-year observations.

The data gathered during the research process was that of the Panel (*time series - cross sectional*) data. Since the sample was consisted of 61 firms from all the non-financial sectors of the country, it included companies of different sizes operating in different environments and, hence, those firms were not homogeneous by their very nature. Therefore, in order not to camouflage the heterogeneity (individuality or uniqueness) that could exist among sample firms, the *Fixed Effects* method of regression was used instead of the OLS (*Ordinary Least Squares*) method.

The Hypotheses

Based on the literature and the conceptual framework for this study, following hypotheses were developed:

Hypothesis 1

The first hypothesis developed for the study was:

H₀₁: Liquidity has no impact on the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

H₁₁: Liquidity significantly affects the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

Hypothesis 2

The second hypothesis developed for the study was:

H₀₂: Financial leverage has no impact on the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

H₁₂: Financial leverage significantly affects the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

Hypothesis 3

The third hypothesis developed for the study was:

H₀₃: Profitability has no impact on the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

H₁₃: Profitability significantly affects the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

Hypothesis 4

The fourth hypothesis developed for the study was:

H₀₄: Firm Size has no impact on the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

H₁₄: Firm Size significantly affects the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

Hypothesis 5

The fifth hypothesis developed for the study was:

H₀₅: Growth has no impact on the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

H₁₅: Growth significantly affects the dividend payout policy of non-financial firms listed at Karachi Stock Exchange.

The Econometric Model

The Regression Equation employed in the study for the sample follows:

$$(DPR)_{ot} = \beta_0 - \beta_1(D/E)_{ot} + \beta_2(A.R)_{ot} + \beta_3(ROCE)_{ot} + \beta_4(S.G)_{ot} + \beta_5(LNS)_{ot} + \varepsilon_{ot}$$

Where:

$(DPR)_{ot}$ = Dividend Payout Ratio of firm o at time t ; $o = 1, 2, 3, \dots, 61$ firms listed in Karachi Stock Exchange

β_0 = Intercept of the equation

t = Time = 1,2,3,4, 5, 6 Years

D/E = Debt-to-Equity Ratio (Proxy for Financial Leverage)

A.R = Acid-test Ratio (Proxy for Liquidity)

ROCE = Return on Capital Employed (Proxy for Profitability)

S.G= Sales Growth

LNS= Natural Logarithm of Sales (Proxy for Firm Size)

ε = Error Term

Results and Discussion

This chapter offers en bloc analyses of the data gathered for the study. In the first instance, summary statistics are provided for each of the variables under study. The second section presents the quantitative analysis of the study:

Summary Statistics

The summary (also known as the ‘descriptive’) statistics for each of the variables used in this study are presented in the following table:

Table 1: *Summary Statistics*

Variable	Mean	Median	Minimum	Maximum
Acid Test Ratio	1.027	0.755	0.010	8.940
Debt-to-Equity Ratio	1.285	0.970	0.030	6.820
Return on Capital Employed	31.618	25.185	-41.780	135.370
Dividend Payout Ratio	0.500	0.394	-3.030	8.333
Natural Log of Sales	15.931	15.846	11.698	20.526
Growth in Sales	0.415	0.136	-0.100	43.660
<i>Variable</i>	<i>Std. Dev.</i>	<i>C.V.</i>	<i>Skewness</i>	<i>Ex. Kurtosis</i>
Acid Test Ratio	1.131	1.102	3.125	14.085
Debt-to-Equity Ratio	1.178	0.917	1.729	3.771
Return on Capital Employed	24.84	0.786	1.488	3.163
Dividend Payout Ratio	0.611	1.222	5.439	77.605
Natural Log of Sales	1.593	0.100	-0.0367	0.147
Growth in Sales	2.733	6.583	12.178	175.895

The Regression Results

In the next step, regression analysis was performed to explore the impact of the five independent variables on the dividend payout ratio. As mentioned previously in the research methodology, the Fixed Effects method of regression was used which is more appropriate for use in the panel data scenarios with *heterogeneous* firms sampled from different industries.

Table 2: *Regression Results*

Fixed-Effects, Using 366 Observations, Included 61 Cross-Sectional Units

Time-series Length = 6; Dependent Variable: Dividend Payout Ratio

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
Constant	2.126	1.504	1.414	0.158	
Acid-test Ratio	0.173	0.045	3.831	0.000	***
Debt-to-Equity	-0.033	0.058	-0.557	0.578	
Return on Capital	0.147	0.025	0.589	0.002	***
LN Sales	0.113	0.095	1.185	0.237	
Growth in Sales	-0.001	0.0122	-0.054	0.957	
R-squared		0.283	Durbin-Watson		2.061
F-Statistic (65, 300)		6.821	P-value (F-Statistic)		0.000

Table 2 gives results of the regression model. The R square is 0.282866 which indicates that more than 28% of the variability in the dependent variable is explained by the independent variables tested. Moreover, the F statistic, which represents the significance of the overall model, has a value of 6.820494 with a p-value less than 0.001 indicating that it is significant at 1% level.

Of the five factors analyzed, only two factors namely the *Liquidity* and *Profitability* have shown a significant association with the dividend payout policy of firms in the sample. The leverage, firm size, and growth, however, have no significant relationships with the dependent variable as per the results of this study.

The liquidity (measured by the Acid-test ratio) has a positive relationship (0.172681) with the dividend payout ratio and the result is very significant (p-value = 0.00016). This means that the more the liquidity of a company, the larger will be its dividend payout ratio. This result is in line with the literature.

Profitability (indicated by the Return on Capital Employed) also revealed a very significant positive relationship with the dividend policy of sample firms (p-value = 0.00217). The coefficient of beta was 0.147331.

Firm size (as indicated by the Natural Log of Sales) also had a positive association with the dependent variable (0.112902). However, the result was insignificant.

Financial leverage (measured by the Debt-to-Equity ratio) represents a negative association with the dividend payout policy of firms. The coefficient is -0.0325118. This is in line with the literature which has also depicted a negative relationship between the two. This connotes that the more a firm relies on external financing, the more difficult it is for that firm to pay regular and large amounts of dividends because of a large burden of fixed charges in the form of interest expense that it pays each year to its creditors. However, the result is not significant.

The growth of the firms (measured by the growth in Sales) also had a negative relationship with the dividend policy of sample firms (-0.0006525) but the result was not statistically significant.

In order to ensure the results of the regression so performed were consistent and unbiased, following further tests were performed, the results of which follow:

The test results for *Normality* gave a very significant Chi-square statistic of 284.786 (p-value = 0.0000) which depicted that the error term of the regression followed a normal distribution.

The Distribution Free Wald test for *Heteroscedasticity* produced a Chi-square (61) of 871319 with a p-value of 0.0000 showing that the units had a common error variance.

As for the *Multicollinearity* (a situation that arises when the independent variables are correlated), Variance Inflation Factors were computed for each of the regressors. As can be seen, the VIF of all the independent variables is closer to 1 and much less than 10 which represents no collinearity problem.

Acid-test Ratio	1.192
Debt-to-Equity	1.336
Return on Capital Employed	1.272
LN Sales	1.406
Growth in Sales	1.027

Finally, the Durbin-Watson Statistic of 2.061023 represented that there was no *Autocorrelation* in the regression results and hence the error terms were not correlated.

Conclusion and Recommendations

The subject of the dividend policy decision has been extensively searched by academia in the field of Finance. Many studies have been attempted to investigate the factors that may affect a firm's decision to pay dividends. However, no consensus has been arrived at so far as to what really dictates a firm's dividend payout policy. This study re-endeavored to examine the probable factors that may influence the dividend payment decision of firms by taking a sample of all the dividend-paying companies listed at Karachi Stock Exchange for a period of six years from 2006 to 2011.

Results of the study depicted a significant positive relationship of the dividend payout ratios of sample firms with their *liquidity* and *profitability*. The *financial leverage* and *growth*, however, had negative relationships but these were not statistically significant. Also the *firm-size* had an insignificant positive association with the dependent variable.

The signs of the coefficients of the regressors are all in line with the literature. Hence, this study is in support of both the theoretical content as well as the empirical studies previously undertaken in this regard. For example, this study shows a positive relationship between liquidity and the dividend payout policy. Obviously firms with substantial amounts of liquid assets can afford to drain out more cash from their business in order to pay shareholders their share from the

overall profits. On the other hand, firms that are short of cash or equivalent items may find it difficult to remunerate their stockholders. In the same manner, profitable firms naturally have the ability as well as the opportunity to disburse more dividends to their shareholders. Moreover, larger firms are also more inclined towards compensating their stockholders than are smaller firms. The same results have been obtained by most of the previous researchers as well. Since the results for two of those variables, i.e., *liquidity* and *profitability* are highly significant, the Null hypotheses H_{01} and H_{03} are rejected and their alternate hypotheses are being accepted for their validity.

On the other side, however, this study could not establish any significant relationship of the dependent variable with financial leverage, growth in sales, and the firm-size. Although the sign of the coefficient for the leverage variable was negative (as per the results of the previous works), it was not significant. The possible reason of this negative relationship, however, may lie in the fact that companies that are more externally financed have to make sure they are able to pay for their huge amounts of *interest* that accrues at the end of each year. For this reason, they normally avoid utilizing their cash by paying dividends. Nonetheless, since the regression results for this regressor (debt-to-equity) are not significant at any level of alpha, the Null hypothesis H_{02} cannot be rejected.

Most large firms are expected to pay larger and consistent dividends. Hence, the larger the company, the larger is its dividend payout ratio. This study also explored a positive association between the two variables; however the result was not significant. Hence, the Null hypothesis H_{04} too cannot be rejected.

It has also been observed in the analysis that growing firms pay lesser dividends. This may be due to the fact that growing companies normally require more and more cash and other current assets in order to manage their ever-growing business needs. So they might find it more challenging to consume some of their cash in paying dividends. Hence, a larger part of the profits is retained by growing firms in an attempt to fulfill their needs for an increased working capital. However, results of this relationship are not significant and, hence, no statistical association can be made between the growth in sales and the dividend payout ratio for firms under study. Hence, the Null hypothesis H_{05} can also not be rejected for its validity.

In a nutshell, this study identifies only two broad variables that mainly explain the dividend paying behavior of companies listed in Karachi Stock Exchange, and these are *Liquidity* and *Profitability*.

Following are a few recommendations for future researchers who may come forward to further enrich the study:

- This study only took into consideration the financial factors that alter the dividend policy of sample firms. In essence, there are some non-financial factors as well that could influence a firm's decision to pay dividends. Some of these could be the company policies, management's concern for its shareholders and attitude towards the payment of dividend etc. A study incorporating those non-financial factors as well could thus come up with more comprehensive results.
- The impact of ownership structure on the dividend payout policy is also a hot topic of research among the academics. However, future researchers may also study the impact of Institutional ownership on the dividend policy of firms in KSE.
- Further studies may be carried out by classifying the sample firms into financial and non-financial companies, thus studying and then comparing the determinants of corporate dividend policy for financial and non-financial firms.
- Studies can also be undertaken to explore reasons behind regular and irregular dividend payments by companies. In such case, sample firms will have to be sub-divided into regular dividend paying and irregular dividend paying companies. In this connection, reasons why companies omit paying dividends also need to be explored by researchers.

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