Asian Journal of Business Management Studies 1 (1): 26-30, 2010
ISSN 2222-1387

Leverage, Growth and Profitability as Determinants of Dividend Payout Ratio-Evidence from Indian Paper Industry

[1]S. Franklin John and [2]K. Muthusamy

[1]Nehru College of Management, Coimbatore, Tamilnadu, India
[2]School of Management, Karunya University, Coimbatore, Tamilnadu, India

Abstract: The objective of this paper is to examine the corporate dividend polity for the Indian paper industry. In this paper, we have used Lintner dividend model and its extended versions for analysis of dividend determinate. Growth in sales, Earnings per share, Price earnings ratio, Market value to book value, Cash flow, Leverage, Liquidity and Return on assets are used as independent variables while dividend payout is the dependent variable. The results imply that the Indian paper industry employs more leverage for narrating dividend payout ratio.

Key words: Price Earnings Ratio % Cash flow % Dividend payout % Growth in sales

INTRODUCTION

Dividend policy is one of the most controversial and the most debateable issues in the corporate finance literature and still keeps its prominent place both in developed and emerging markets. Many researchers have engaged in extensive research to explain why companies should pay or not pay dividend and developed and empirically tested various models to explain dividend behavior. There are many reasons explaining, why dividend policy is so interesting. One reason is that the dividend policy of the firm affects its capital structure.

Consider the case, where the dividend payment is increased, then less fund is available internally for financing investments and consequently additional equity capital is needed. Thus the company has to issue new common stock.

In today's complex corporate environment, it is the critic job to the finance manager to survive the firm in long run perspectives with the objective of maximizing the owners wealth with a view to achieve this objective, finance manager is required to pay his due attention on investments decision, financing decision and dividend decisions.

Assuming that sound investment policies are there, this intends to optimize the financing decision and dividend decision in the context of achieving the stated objective. Financing decision refers to the selection of appropriate financing mix so it relates to the capital structure or leverage. Capital structure refers to the composition of long term debt capital and equity capital required to finance investment proposal. There should be an optimum or balanced capital structure to ensure affordable financial leverage. This paper mainly concentrates on the exercise of financial leverage in the context of understanding its impact on dividend payout policy of Indian paper industry.

This paper is organized as follows: Section 2 presents the main findings of the relevant literature. Section 3 discusses the data and the variables employed in the analysis. Section 4 provides the results of the empirical analysis. Section 5 presents the conclusion.

Review of Literature: Higgins [1] argued that payout ratio is negatively related to a firm's need for funds to finance growth opportunities. Amidu and Abor [2] found a positive relationship between corporate profitability and dividend payout ratios. Anil and Kapoor [3] indicated that profitability has always been considered as a primary indicator of dividend payout ratio. Higgins [4] shows that there is direct link between

Corresponding Author: S. Franklin John, Nehru College of Management, Coimbatore, Tamilnadu, India,
E-mail: franklinjohn@rediffmail.com , muthusamyphdmgt@gmail.com.

growth and financing needs of a firm. Rapidly growing firms require external financing because working capital needs normally exceed the incremental cash flows from new sales. Alli, *et al.* Khan, Ramirez [5] argues that dividend payments depend more on cash flows, which reflect the company's ability to pay dividends, than on current earnings, which are less heavily influenced by accounting practices. They claim that current earnings do not really reflect the firm's ability to pay dividends. Collins Saxena, Wansely [6] found statistically significant and negative relationship between firm's risk and the dividend payout ratios. Their findings suggest that firms having a higher level of risk will pay out dividends at lower rate. D'Souza [7] also finds statistically significant and negative relationship between risk and dividend payout. Amidu and Abor [2] found a negative relationship between market-to-book ratio and dividend payout ratio. Lintner [8] hypothesized that dividends are based primarily on net income levels and are adjusted slowly in response to income changes. He provides evidence that a rise in individual tax rates encourages stockholders to prefer corporate savings over a dividend payment as a tax shelter since retained earning are not taxed immediately as dividends are. The shareholder only pays capital gains taxes at the time of the sale of the stock. High growth firms have greater need for external financing. Therefore, to insure access to external equity capital the firm may be motivated to establish a good reputation with stockholders through higher dividend payout Laporta, R., F. Lopez-de-silanes, A. Schiefer and R. Vishny [20]. We measure growth with the estimated five-year sales growth rate. We expect sales growth to relate positively with dividend payout.Friend and Puckett [9], who found that the dividend effect suggests that a dollar of dividend has four times the average impact on stock price than a dollar of retained earnings,. High PEs may be associated with low risk and higher payout ratios, whereas low PEs may be attributed to high risk and lower payout ratios. Darling [10] and Baker, Veit and Powell [11], explicitly stated that firms with higher levels of debt also need higher levels of liquidity to allow for payoffs on potential implicit claims. These firms are more conservatively financed, use more equity and maintain a higher level of liquidity to avoid the costs of financial distress. To increase liquidity, firms might lower dividend payout. Lower payout means firm's will need less outside financing, since they are retaining cash internally to strengthen liquidity. Thus, we expect a negative relationship between liquidity and dividend payout since the more cash paid out to investors in the form of dividends would reduce the cash on hand to the firm. Mishra and Narender [12]) analyze the dividend policies of 39 state-owned Enterprises in India. The find that Earnings per share (EPS) is a major factor in determining the dividend payout of state owned enterprises. Mahapatra and Sahu [13] analyze the determinants of dividend policy using the modes developed by Lintner [14], for a sample of 90 companies. They find that cash flow is a major determinant of dividend followed by net earnings. Friend and Puckett [9], stated that Corporate aggregate dividend policy will tend to vary directly with current profits, past profits, the rate of amortization recoveries and shifts in anticipation of future earnings and will vary inversely with persistent changes with the level of sales [10]. We measure profitability with the profit margin and expect the ratio to relate positively with dividend payout. Pruitt and Gitman [15] indicate that risk affects firm's dividend policy. Firms with high growth rates and high dividend payout ratio's utilize debt financing and firms with high leverage compared to their respective industry.

Methodology and Data: To remain consistent with previous measures, pertaining to Growth in sales (GS), Earning per Share(EPS), Price earning ratio(P/E), market to book value (MB), Cash flow(CF), leverage(LEV), Liquidity(LIQ), Return On Asset(ROA), Payout ratio, where adopted from Amidu and Abor's [2].

To analyses those characteristics of the company that appear to affect the dividend decisions. This study employee's Ordinary Least Square (OLS) Regression on the sample of Top-ten paper firms from Indian paper industry listed in Bombay Stock Exchange, Mumbai based on sales. This study is mainly based on secondary data, which is collected from CIME (Center for Monitoring Indian Economy) browse data base. We empirically test the impact of independent variables on the firm's dividend payout ratio. This relationship is represented by

$$\text{Payout} = b_o + b_1 * GS_i + b_2 * EPS_i + b_3 * Pe_i + b_4 * Mb_i + b_5 * Cf_i + b_6 * LEV_i + b_7 * LIQ_i + b_8 * ROA_i + uit$$

Where b_o denotes the intercept of the regression equation and b_1, b_2, b_3.b_4, b_5, b_6, b_7 and b_8 are the regression co-efficient of GS, EPS, PE, MB, CF, LEV, LIQ and ROA.

Determinants of Dividend Payout: Among factors that may be instrumental in affecting the dividend payout decision, are, as below

Growth in Sales (GS): Sales growth may impact dividend payout ratios. Higher growth firms have greater need for external financing. Therefore, to insure access to external equity capital, the firm may be motivated to establish a good reputation with stock holders through higher dividend payout Laporta, R., F. Lopez-de-silanes, A. Schiefer and R. Vishny [20]. According to signaling theory the high growth firms are smoother to pay their dividends to shareholders.

Earnings per Share (EPS): It is used because dividend has been paid out of earnings after interest, taxes and depreciation. It is a critical determinant of dividend payment. As such, managers are reluctant to reduce dividends except during periods, when earnings are especially poor. This implication suggests that loss is a necessary condition to promote dividend reduction by firms with established earnings and dividend record. Likewise, it is reasonable to expect that not all firms with losses reduce dividends. Only those firms with deep persistent earnings problems will cut dividends. It has positive relationship with dividend payouts.

Price Earnings Ratio (PE): This is calculated by dividing the current market price of the stock by the estimated earning per share for the current year. High price earnings ratio may be associated with low risk and higher payout ratio, whereas low price earnings ratio may be abstracted to high risk and lower payout ratio. We expect a positive relationship between price earning and dividend payout.

Market Value to Book Value Ratio (MB): This reflects the market view of the value of equity in comparison to what shareholders have contributed to the firm. Omran and Pointon [16] points that market value to book value ratio is an important factor that influences dividend payout ratio and Amidu and Abor [2] found a negative relationship between market value to book ratio and dividend payout ratio.

Cash Flow (CF): The level of cash flow of a firm is an important determinant of dividend payments. A poor liquidity position means fewer dividends due to shortage of cash. Amidu and Abor [2] found a positive relationship between cash flow and dividend payouts. Anil and kapoor [3] also indicate that cash flow is an important determinant of dividend payout rate.

Leverage (LEV): It is a crucial factor, which influence the dividend behaviors of the firm, if the level of leverage is high mean the firm is more risky in the cash flow. The negative effect of leverage on dividend payment is revealed from the study conducted by Higgins, Rozeff, [1,17] finds that the firms with higher leverage pay lower dividends in order to evade the cost of raising external capital of the firms.

Liquidity (LIQ): Firms with higher levels of debt also need higher level of liquidity to allow for pay offs on potential implicit claims. These firms are more conservatively financed, use more equity and maintain a higher level equity to avoid those cost of financial distress. To increase liquidity firms might lower dividends payouts. Lower payout means firms will need less outside financing, since they are retaining cash internally to strengthen liquidity. Thus, we expect a negative relationship between liquidity and dividend payout ratios, since more cash paid out to investors in the form of dividends would reduce the cash on hand of the firm.

Return on Assets (ROA): It is calculated by dividing net profit after tax and depreciation before interest by total assets. It is recorder as the primary indication of firms to pay dividends. Lintner [14] found that the anticipated level of future earnings is the determinant of dividend payment. Pruitt and Gitman [15] in their study report that current and past years profit are important factors influencing dividend payments.

RESULTS AND DISCUSSION

The regression analysis is shown in table 2. The R^2 was 0.87 for the regression model. These variable tested explain 87 per cent of the factors that determine the firms dividend payout ratio. The mulitcolinearity has been tested to estimate best model of OLS ,which reveals that all variance inflation factor(coefficients) are less than 26.946 and tolerance coefficients are greater than 0.037

OLS Regression estimates on factors Affecting Dividend payout Ratios:

	Unstandardized coefficient		Standardized co-efficient			Collinearity statistics	
Variables	B	Std. Error	Beta	T	Sig	Tolerance	VIF
(Constant)	32532.465	20089.096		1.620	0.352		
GS	-1.475	2.558	-0.772	-0.577	0.667	0.072	13.820
EPS	-342.664	217.510	-1.929	-1.575	0.360	0.087	11.553
PE	-578.318	1013.450	-0.682	-0.571s	0.670	0.091	10.999
MB	-561.195	8933.076	-0.118	-0.063	0.960	0.037	26.946
CF	34.888	145.674	0.176	0.239	0.850	0.240	4.169
LEV	-1535.386	5628.132	-0.287	-0.273	0.830	0.117	8.528
IQ	-368.495	418.850	-0.395	-0.880	0.541	0.675	1.549
ROA	-226187.4	243500.60	-1.583	-0.929	0.523	0.045	22.371

F. value = 0.838 R^2 =0.870

Growth in Sales (GS): Sales growth is found to be negatively associated with payout ratio. The result lend some support to the findings of Amidu and Abor [2], Higgins [1] Collinsme, Saxenak, Wansely [6].

Earnings per Share (EPS): It is found to be negatively associated with leverage. This result is contrary to the findings of Banerjee, Gatcher and Spindt [19], Friend and Puckett [9].

Price Earnings Ratio (PE): The price earnings ratio is found to be significantly associated with dividend payout. This result is contrary to the results of Friend and Puckett [9] who found that, high P/E may be associated with low risk and higher payouts, whereas low P/E may be attributed to high risk and lower pay outs.

Market Value to Book Value (MB): It is found have negative relationship with dividend payout ratio, this result lend some support to the findings of D'souza [7] and Amidu and Abor [2].

Cash Flow (CF): We found that the cash flow and dividend payout is positively related. This result is supported by the previous findings of Amidu and Abor [2], Anil and Kapoor [3], who found that the cash flow was positively related with dividend payout ratios.

Leverage (LEV): It is found to be negatively associated with dividend payout ratio. While high level of leverage increase the probability of a dividend cut rather than adjusting payouts to main firm investment plans such companies must instead borrow more or raise more equity financing. This result is supported by the previous findings of Benito and Young [18] who found that high rates of retention are associated with relatively heavy external financing and low rates of retentions with small amounts of external financing. The inherent advantages of retaining earnings undoubtedly encourage the maximum use of this source of funds before resorting to the capital market. Thus external financing may be associated with high earnings retention for companies with abundant investment opportunities, whereas the absence of external financing may be associated with lower earnings retention for other companies, hence we conclude that the rate of earnings retention is positively correlated with external financing. Therefore, the higher the earnings retention rate, the lower the dividend payout ratio and vice-versa.

Liquidity (LIQ): This ratio is found that a negative relationship between liquidity and dividend payout. Since the more cash paid out to investors in the form of dividends would reduce the cash on hand to the firm. The result is support to the previous findings of Darlings [10] and Baker, Veit and Powell [11] who found that the liquidity and dividend payout was negatively associated.

Return on Assets (ROA): ROA is negatively related with dividend payout. Firm's with larger profits are more likely to pay a dividend, while companies that are facing uncertainty, about future profits, would adopt lower payouts. This result is similar to Puckett [9] and Lintner [8]. Corporate aggregate dividend policy will tend to vary directly with current profits, past profits, the rate of amortization recoveries and shifts in anticipation of future earnings and will vary inversely with persistent changes with the level of sales.

CONCLUSION

This study examined the relationship between leverage and dividend payout ratios of Indian paper industry. The study used the firm's dividend payout ratio as the dependent variable to represent the dividend decision. Independent variables tested include: Growth in sales, Earning per share, price earning ratio, market value to Book value, cash flow, leverage, liquidity and Return on Assets. We found that the variables like Growth in sales, Market value to book value, Cash flow, Leverage, Liquidity, Return on assets have expected relation with dividend payout and consistent with previous studies conducted on the same topic. We also found Earnings per share and Price earnings ratio are negatively related to dividend payout ratio and the result is contrary to the previous studies. The result of this study suggest that the leverage is negatively associated with dividend payout ratio Rozeff [17], Collins, Saxena and Wansely [6] and D'souza [7] found a statistically significant negative relationship between leverage and dividend payout ratio.

REFERENCES

1. Higgins, R.C., 1972. The corporate dividend-saving decision, J. Finance. Quant. Anal., 7: 1527-41.
2. Amidu, M. and J. Abor, 2006. Determinants of dividend payout ratios in Ghana, Risk. Finance, 7: 136-45.
3. Anil, K. and S. Kapoor, 2008. Determinants of dividend payout ratios-a study of Indian information technology sector, Int. Res. J. Finance Econ., 15: 1-9.
4. Higgins, R.C., 1972. Sustainable growth under inflation, Finance Manage., 10: 36-40.
5. Alli, K., A. Khan and G. Ramirez, 1993. Determinants of dividend policy: a factorial analysis,. Finance Rev., 28: 523-47.
6. Collins, M.C., A.K. Sacena and J.W. Wansley, 1996. The role of insiders and dividend policy: a comparison of regulated and unregulated firms, J. Finance Strategic in Dec., 9: 1-9.
7. D'Souza, J., 1999. Agency cost, market risk, investment opportunities and dividend policy an international perspective, Managerial Finance, 25: 35-43.
8. Lintner, J., 1956. Distribution of Incomes of Corporations among Dividends, Retained Earnings and Taxes, American Economic Rev., 46(2): 97-113.
9. Friend, I. and M. Puckett, 1964. Dividends and Stock Prices, The American Economic Rev., 54(5): 656-682.
10. Darling, P.G., 1957. The Influence of Expectations and Liquidity on Dividend Policy, J. Political Economy, 65(3): 209-224.
11. Baker, H.K., E.T. Veit and G.E. Powell, 2001. Factors Influencing Dividend Policy Decisions of Nasdaq Firms, The Financial Review, Eastern Finance Association.
12. Mishra, C. and V. Narender, 1996. Dividend policies of state owned Enterprises in India, An Analysis finance India, 10: 633-645.
13. Mahapatra, R.P. and P.K. Saha, 1993. A Note on Determinants of Corporate Dividend Behaviour in India, An Econometric Analysis, Decision, 20: 1-22.
14. Lintner, J., 1956. Distribution of incomes of corporations among dividends, retained earnings and taxes, Am. Econ. Rev., 46: 97-113.
15. Pruit, S.W. and L.W. Gitman, 1991. The interactions between the investments, financing and dividend decisions of major US firms, Finance Rev., 26: 409-30.
16. Omran, M. and J. Pointon, 2004. Dividend policy, trading characteristics and share prices: empirical evidence from Egyptian firms, Int. J. Theory Appl. Finance, 7: 121-30.
17. Rozeff, S.M., 1982. Growth, beta and agency cost as determinants of dividend payout ratios, J. Finance, Res., 5: 411-33.
18. Benito, A. and G. Young, 2001. Hard Times or Great Expectations? Dividend Omissions and Dividend Cuts by UK Firms, Working Paper, Bank of England, London.
19. Banerjee, S.V. Gatcher and Spindt, 2002. To pay or Not pay?. The dividend Dilemma of the liquid firm, working paper: Tulane University, New Orleans luisiana,
20. Laporta, R., F. Lopez-de-silanes, A. Schiefer and R. Vishny. 2000. Agengy Problems and Dividend Policies around the world , J. Finance, 55(1): 1-34.