Factors Influencing Dividend Policy Decisions of Corporate India

Manoj Anand*

The present study analyzes the results of 2001 survey of 81 CFOs of 500 companies and her most valuable PSUs in India to find out the determinants of the dividend policy decisions of the corporate India. It uses factor analytic framework on the CFOs’ responses to capture the determinants of the dividend policy of corporate India. Most of the firms have target dividend payout ratio and dividend changes follow shift in the long-term sustainable earnings. The findings on dividend policy are in agreement with Lintner's study on dividend policy. The dividend policy is used as a signaling mechanism to convey information on the present and future prospects of the firm and thus affects its market value. The dividend policy is designed after taking into consideration the investors’ preference for dividends and clientele effect.

1. Introduction

In this paper, a comprehensive survey by Anand (2002) has been analyzed in a factor-analytic framework to capture the different dimensions influencing the dividend policy decisions of the corporate India. The best-known field study in this area is Lintner's (1956) path-breaking analysis of dividend policy. Britain (1964, 1966), Fama and Babiak (1968), Bond and Mougoue (1991), and Benartzi et al. (1997) critically examined the applicability of the Lintner's mathematical model to describe the dividend decision process.

Frankfurter and Wood (1997) argue that dividend policy is more of a ‘behavioral model’. Several studies have been done to identify the factors that corporate finance managers consider in laying down the dividend policy [see for example, Baker et al. (1985); Farrelly et al. (1986); Baker and Farrelly (1988); Pruitt and Gitman (1991); Lazo (1999); Mohanty (1999); Baker and Powell (2000); and Baker et al. (2001)]. It is believed that the findings of the present study will be of use to academia and practitioners in learning how corporate India determines dividend policy.

The study samples a large cross section of 474 private sector and top 51 public sector top firms of corporate India based on market capitalization. In all, 81 Chief Financial Officers (CFOs) from a broad cross section of the firms responded to the survey, for a response rate of 15.43%.

2. Methodology

2.1 Research Design

The survey by Anand (2002) planned to identify the factors that CFOs consider in formulating dividend policy of corporate India. The final questionnaire on dividend policy contained thirteen questions.

* Reader, Finance & Accounting Area, University Business School, Panjab University, Chandigarh - 160014
e-mail: manand1963@yahoo.com, Phone: 0172 - 2572326, Address for Correspondence: # 1030, Sector 11, Panchkula - 134112 (Haryana).

© 2004, The ICFAI Journal of APPLIED FINANCE.
The survey asked the CFOs to indicate the belief of the management on dividend policy on a scale of –2 to +2 (where –2 means “definitely do not agree”; 0 means “neither agree nor disagree”; and +2 means, “definitely agree”).

Business Today reports every year the India’s most valuable 500 companies and ranks them based on their market capitalization. The October 06, 2000 issue of Business Today reported 500 companies in private sector and India’s 75 most valuable PSUs for the year 1999-2000. These constitute the extent of the corporate India for the present study. The said list included 26 NBFCs and banks in the private sector and 24 in the public sector category and the same have been excluded as the NBFCs and banks are beyond the scope of the present study. Thus, the extent of the present study consisted of 474 firms in the private sector and 51 in the public sector.

2.2 Delivery and Response

The questionnaire was sent to the CFOs of the 474 private sector and 51 public sector firms through mail on May 08, 2001. Subsequently the questionnaire was mailed again for follow-up to those who did not reply, in order to maximize the response rate. Eight questionnaires were undeliverable due to change in the address of the firms. It was indicated in the request to the CFOs that the identity of the respondent companies and executives will be kept strictly confidential and only aggregate generalizations will be published. 81 completed questionnaires were returned for a response rate of 15.43%.

2.3 Summary Statistics and Data Issues

The financial statistics of the respondent companies have been collected from the secondary sources. The companies range from medium-sized firms (19.8% of the sample firms have sales less than or equal to Rs. 2 bn; 18.5% have assets less than or equal to Rs. 2 bn; 37.2% have market capitalization less than or equal to Rs. 2 bn) to very large sized firms (37% have sales greater than Rs. 10 bn; and 22.2% have assets greater than Rs. 25 bn; and 20.5% have market capitalization greater than Rs. 25 bn).

The median Return on Capital Employed (ROCE) is 12.8%. 41% of the respondent firms have ROCE greater than 15%. The median EVA of respondent firms is negative and 34.6% have positive EVA. The median debt to total value ratio of respondent firms is 21.26% and 29.6% have less than or equal to 5%. 88% of the respondent firms are in the private sector as against 12% in the public sector.

2.4 Analytical Tools Used

The factor analytic methodology has been used to analyze the dividend policy of corporate India based on responses received from the 81 CFOs to the survey questionnaire. The armory of factor analytic methods is quite a rich and rigorous one. The Principal Components Analysis (PCA) of Hotelling (1933) has been used to explore and confirm the inter-relatedness between the occurrence of variables pertaining to dividends and earnings, information signaling, clientele effect, investors’ preferences, and market value of the firm.

The correlation matrix (Table 1) of the thirteen variables on dividend policy has been subjected to the PCA. It provided a set of components, which explained variances in descending order of total variance of a set of variables pertaining to a domain of variables under study. Theoretically, it extracted as many components as is the number of variables.
<table>
<thead>
<tr>
<th></th>
<th>Has long-term target dividend payout ratio</th>
<th>Focus more on absolute level of dividends than dividend changes</th>
<th>Dividend change follows shift in long-term sustainable earnings</th>
<th>Willing to rescind dividend increase in the event of growth opportunities</th>
<th>Cash dividends as residual after financing desired investments from earnings</th>
<th>Dividend payout ratio affects the market value of the firm</th>
<th>Provide signaling mechanism of future prospects of the firm</th>
<th>Different relative risk perceptions of dividends and retained earnings</th>
<th>Indifferent between receiving dividends and capital gains</th>
<th>Responsive to shareholders’ preferences regarding dividends</th>
<th>Share buyback program should replace dividend payments of firm</th>
<th>Submits the firm to the scrutiny of investors</th>
<th>Provide a bonding mechanism to encourage managers to act in the best interest of the shareholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus more on absolute level of dividends than dividend changes</td>
<td>0.269**</td>
<td>0.340**</td>
<td>0.374***</td>
<td>0.165</td>
<td>0.189*</td>
<td>0.098</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividend change follows shift in long-term sustainable earnings</td>
<td>0.340**</td>
<td>0.374***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willing to rescind dividend increase in the event of growth opportunities</td>
<td>0.165</td>
<td>0.189*</td>
<td>0.098</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash dividends as residual after financing desired investments from earnings</td>
<td>-0.12</td>
<td>0.016</td>
<td>0.073</td>
<td>0.011</td>
<td>0.003</td>
<td>0.292***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividend payout ratio affects the market value of the firm</td>
<td>0.229**</td>
<td>0.084</td>
<td>0.163</td>
<td>-0.056</td>
<td>-0.149</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide signaling mechanism of future prospects of the firm</td>
<td>0.012</td>
<td>0.069</td>
<td>0.075</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different relative risk perceptions of dividends and retained earnings</td>
<td>-0.081</td>
<td>-0.097</td>
<td>0.064</td>
<td>-0.095</td>
<td>0.055</td>
<td>0.217*</td>
<td>0.053</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indifferent between receiving dividends and capital gains</td>
<td>-0.081</td>
<td>-0.097</td>
<td>0.064</td>
<td>-0.095</td>
<td>0.055</td>
<td>0.217*</td>
<td>0.053</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsive to shareholders’ preferences regarding dividends</td>
<td>0.118</td>
<td>0.098</td>
<td>0.155</td>
<td>0.183</td>
<td>0.165</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share buyback program should replace dividend payments of firm</td>
<td>0.085</td>
<td>0.049</td>
<td>0.038</td>
<td>0.372***</td>
<td>0.116</td>
<td>-0.173</td>
<td>0.292***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submits the firm to the scrutiny of investors</td>
<td>0.003</td>
<td>0.146</td>
<td>0.011</td>
<td>-0.227**</td>
<td>0.113</td>
<td>-0.031</td>
<td>-0.029</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide a bonding mechanism to encourage managers to act in the best interest of the shareholders</td>
<td>0.281**</td>
<td>0.232**</td>
<td>0.167</td>
<td>0.006</td>
<td>0.1023***</td>
<td>0.32***</td>
<td>0.169</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***, **, and * denote a significant difference at 1%, 5% and 10% respectively.
Eigenvalue (or characteristics root): a mathematical property of a matrix; used in relation to the decomposition of a conveyance matrix, both as a criterion of determining the number of factors to extract and a measure of variance accounted for by a given dimension (Kim and Mueller, 1978, p. 76).

The number of principal components to be retained has been decided based on Kaiser’s (1958) criterion of Eigen value\(^1\) \(\geq 1\) Bartlett’s test, Cattell’s (1966) scree test, and Bentler’s internal consistency coefficients.

The Bartlett’s test of significance led to acceptance of six significant principal components (Table 2: Summary Statistic). The application of Cattell’s (1966) scree test (Fig. 1) resulted in acceptance of three or four factors. The Bentler’s (1968) internal consistency coefficients have been computed to examine replicability, robustness, and reliability of the components using Pal (1986) framework that is as follows:

\[
\alpha_{oi} = \frac{p}{p-1} \left(1 - \frac{1}{\theta_i^2}\right)
\]

Where \(p\) is the number of variables of the correlation matrix \(R\); and \(\theta_i\) are the Eigen values such that \(\theta_1 > \theta_2 > \theta_3 > \ldots > \theta_k\) where \(K\) would be the number of retained principal components on the basis of latent roots unity. Only such \(K\) coefficient would be meaningful and interpretable.

The PCA with varimax rotation method has been used to maximize the sum of squared loading of each factor extracted in turn. It explained more variance than the loadings obtained from any other method of factoring.

A visual view of the original as well as the varimax rotated factor matrix (Table 3) led to the conclusion that only three components are interpretable in the context of dividends and earnings, information signaling, clientele effect and investors' preferences, and market value of the firm.

The varimax rotated factor matrix having three factors was further subjected to oblimin rotation in order to obtain oblique factor structure coefficients at the minimum level of correlations amongst the three pairs of orthogonal factors (Table 4).

The factors loaded by variables having significant loadings of the magnitude of 0.50 and above have been interpreted.

2.5 Limitations of the Study

In any such survey, it is likely that the firms that did not respond on time may have a non-response bias. Whatever the respondents have said is believed to be their true response and hence, no statistical test has been performed to study non-response bias and

\(^1\) Eigen value (or characteristics root): a mathematical property of a matrix; used in relation to the decomposition of a conveyance matrix, both as a criterion of determining the number of factors to extract and a measure of variance accounted for by a given dimension (Kim and Mueller, 1978, p. 76).
the consistency of individuals' responses. Another limitation of survey methodology is that it measures beliefs and not necessarily actions. Overall, the versatility in the characteristics of respondents' and firms' allow the present study to examine the practice of dividend policy of corporate India vis-à-vis theory.

3. Dividend Policy: Theory Vs. Practice

3.1 Empirical Work on Dividend Policy

The celebrated paper of MM (1961) declares dividends as irrelevant in a world without taxes, transaction cost, or other market imperfections and investment decision of the firm is not affected by the dividends because investors adds that the homebrew their own dividends by selling a part from or borrowing against their portfolio. The firms that issue dividends would incur floatation costs on new securities they have to issue to keep their investment policy intact. Black (1976) termed this as the dividend puzzle.
Lintner (1956) analyzes as to how firms set dividends and concluded that firms have four important concerns. Firstly, firms have long-run target dividend payout ratios. The payout ratio is high in case of mature companies with stable earnings and low in case of growth companies. Secondly, the dividends change follows shift in long-term sustainable earnings [See for example, Healy and Palepu (1988)]. The managers are more concerned with dividend changes than on absolute level. Finally, managers do not intend to reverse the change in dividends. Fama and Babiak (1968) tests of Lintner’s model suggest that it provides a good explanation of how companies decide on dividends rate.

Asquith and Mullins Jr. (1983) study investigates the impact of dividends on stockholders’ wealth by analyzing 168 firms that either pay the first dividend in their corporate history or initiate dividends after a 10-year hiatus. Subsequent dividend increases for same the sample of firms have also been investigated. The findings are consistent with the view that dividends convey unique and valuable information to the investors. Lang and Litzenberger (1989) study suggests that information content of negative changes in dividends is greater than that of positive changes.
Lazo (1999) survey of 110 managers from Standard & Poor’s 500 companies finds that companies (90%) use dividends as a signal of their future earnings. They are very reluctant to cut dividends, regardless of the purpose for such a cut. Even when the companies initiate stock buyback program, they do not reduce the dividends to support the repurchase. 75% of the firms have actually increased their dividend payments.

Koch and Shenoy (1999) study finds that both dividend and capital structure policies of the firm interact to provide significant predictive information about future free cash flows of the firm. A U-shaped relation between the amount of information and Tobin’s Q has been observed. The minimum of the relationship has been found at Tobin’s Q value of one. Thus, strong information effect has been observed for both over- and under-investing firms than for value maximizing firms.

Baker et al. (2001) survey of 188 CFOs of Nasdaq-listed firms on 22 variables of the

<table>
<thead>
<tr>
<th>Table 4: Structure Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
</tr>
<tr>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Has long-term target dividend payout ratio</td>
</tr>
<tr>
<td>Focus more on absolute level of dividends than dividend Changes</td>
</tr>
<tr>
<td>Dividend change follows shift in long-term sustainable earnings</td>
</tr>
<tr>
<td>Willing to rescind dividend increase in the event of growth opportunities</td>
</tr>
<tr>
<td>Cash dividends as residual after financing desired investments from earnings</td>
</tr>
<tr>
<td>Dividend payout ratio affects the market value of the firm</td>
</tr>
<tr>
<td>Provide signaling mechanism of future prospects of the firm</td>
</tr>
<tr>
<td>Different relative risk perceptions of dividends and retained earnings</td>
</tr>
<tr>
<td>Indifferent between receiving dividends and capital gains</td>
</tr>
<tr>
<td>Responsive to shareholders’ preferences regarding dividends</td>
</tr>
<tr>
<td>Share buyback program should replace dividend payments of firm</td>
</tr>
<tr>
<td>Subjects the firm to the scrutiny of investors</td>
</tr>
<tr>
<td>Provide a bonding mechanism to encourage managers to act in the best interest of the shareholders</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis
Rotation Method: Oblimin with Kaiser Normalization
dividend policy found that Lintner's (1956) survey results and model is valid. No significant difference between the dividend policy of Nasdaq-listed firms and NYSE-listed firms.

Bhat and Pandey (1994) survey finds that management of the firms believe that they do have target dividend payout ratio and dividend change follows the sustainable increase in the level of the earnings. Mohanty (1999) survey of the dividend payout ratio of the 2535 Indian companies indicate that firms maintain a constant dividends per share and have fluctuating payout ratio depending on their profits.

Raghunathan and Dass (1999) find that the top-100 and high networth companies have maintained a stable dividend payout policy of around 30% during the period 1990 to 1999 in India.

3.2 Survey Findings

3.2.1 Correlation Matrix

The correlation matrix amongst the thirteen variables of the dividend policy reveals that there is a significant positive correlation between the variables—'Firm has long-term dividend payout ratio'; and 'dividends change follow shift in the long-term sustainable earnings'; and 'Firm has long-term dividend payout ratio'; and 'dividend payout ratio affects the market value of the firm'. There is a significant negative correlation between the variables—'Firm has long-term dividend payout ratio' and 'investors are indifferent between receiving dividends and capital gains'; and 'dividends change follow shift in the long-term sustainable earnings' and 'cash dividends are residuals after financing desired investments from earnings'. These findings are in agreement with the Lintner's (1956) study.

There is a significant positive correlation between the variables—'dividends provide signaling mechanism of the future prospects of the firm' and 'dividend payout ratio affects the market value of the firm'; and 'dividends provide signaling mechanism of the future prospects of the firm' and 'dividends provide a bonding mechanism to encourage managers to act in the best interest of the shareholders'. There is a significant negative correlation between the variables—'dividends provide signaling mechanism of the future prospects of the firm' and 'share buyback program should replace the dividend payments of the firm'; and 'dividend payments subject the firm to the scrutiny of the investors' and 'investors are indifferent between receiving dividends and capital gains'.

3.3 Factor Analysis Results

The principal components analysis using 'varimax rotation method' and 'oblimin rotation method' of correlation matrix of the thirteen variables have led to the extraction of three broad components of dividend policy of the corporate India. These are: 'dynamic-static dividend policy', 'information signaling', and 'clientele effect and investors' preference for dividends'. These factors accounted for 18.95%, 13.5%, and 11.05% of the total variance explained, respectively.

3.3.1 Factor I: Dynamic-Static Dividend Policy

The first factor 'dynamic – static dividend policy' has significant positive loading of 0.69 and 0.68 respectively using varimax rotation (and 0.688 and 0.686 respectively using oblimin rotation) on two variables namely 'firm has a long-term dividend payout ratio',...
and 'dividend change follow shift in long-term sustainable earnings'. It has a significant loading on the variable 'dividends provide a bonding mechanism to encourage managers to act in the best interest of the shareholders' of 0.49 using varimax rotation (and 0.52 using oblimin rotation) and on the variable 'managers focus more on absolute level of dividends than dividend changes' of 0.624 using varimax rotation (and 0.617 using oblimin rotation).

It has a meaningful loading on the variables namely 'willing to rescind dividend increase in the event of growth opportunities available', and 'dividend payout ratio affects the market value of the firm' of 0.39 and 0.36 respectively using varimax rotation (and 0.36 and 0.40 respectively using oblimin rotation).

Most of the firms have target dividend payout ratio and dividend changes follow shift in the long-term sustainable earnings. The dividend policy is static in the sense that firms want to have a stable dividend policy and dynamic too as they want to increase with the increase in level of sustainable earnings.

3.3.2 Factor II: Information Signaling

The second factor 'information signaling' is bipolar in nature. On its one pole, there are two variables pertaining to information content of dividends. These are 'dividends provide signaling mechanism of future prospects of the firm' and 'dividend payout ratio affects the market value of the firm', which have high negative loadings of 0.59 and 0.51 respectively using varimax rotation (and negative loading of 0.60 and 0.55 using oblimin rotation).

On the other pole, there are two variables pertaining to availability of growth opportunities, namely, 'share buyback program should replace the dividend payments of the firm' and 'willing to rescind dividend increase in the event of growth opportunities available', having loadings of 0.76 and 0.53 respectively with varimax rotation (and 0.75 and 0.51 respectively with oblimin rotation). It has a meaningful loading 0.39 using varimax rotation (and 0.40 using oblimin rotation) on the variable 'cash dividends as residual after financing desired investment from earnings'.

The firm's dividend policy, either exclusively or with capital expenditure announcement conveys information about the current and future prospects to the less informed market. The effect of this information asymmetry is substantial when the firm has an incentive to establish its true market price. These could be when the firm is facing a takeover threat, or coming out with issue of equity or debt. There is a substantial cost associated with it, in terms of personal tax disadvantages of cash dividends [John and Williams (1985) and Ambarish et al. (1987)] and suboptimal investments by the firm [Miller and Rock (1985) and Woolridge and Ghosh (1985)]. It prohibits the firms that do not have favorable information to make such dividend announcement and is referred to as signaling equilibrium (Lease et al. (2000)).

3.3.3 Factor III: Clientele Effect and Investors’ Preference for Dividends

The third factor 'clientele effect and Investors’ preference for dividends' is also of bipolar in nature. On its one pole, there are the two variables pertaining to investors' preference for dividends. These are 'dividends subject the firm to the scrutiny of the investors' and 'relative risk perceptions of dividends and retained earnings are different', which have high positive loadings of 0.75 and 0.54 respectively using varimax rotation (and of 0.75 and 0.54 using oblimin rotation). It has a meaningful loading 0.36 using varimax rotation (and 0.39 using oblimin rotation) on the variable 'dividends provide bonding mechanism
to encourage managers to act in the best interest of the shareholders’. On the other pole, there is one variable, namely, ‘investors are indifferent between receiving dividends and capital gains’ having negative loading of 0.68 with varimax rotation (and 0.68 with oblimin rotation). There are certain investors who are tax neutral.

The payments of dividend help reduce the agency cost associated in a corporate form of organizational structure [Easterbrook (1984), Jensen (1986), and Jensen et al (1992)]. The dividend payments reduce the incentive to managers to use free cash flows for creation of corporate wealth instead of shareholders’ wealth [Lang and Litzenberger (1989) and Agrawal and Jayaraman (1994)].

4. Conclusions
The results of the present study are consistent with the theory and they are simultaneously revealing as well. The management of corporate India believes that dividend decisions are important as they provide a signaling mechanism for the future prospects of the firm and thus affect its market value. They do consider the investors’ preference for dividends and shareholder profile while designing the dividend policy. They also have a target dividend payout ratio but want to pay stable dividends with growth. Therefore, dividend policy does matter to the CFOs and the investors.

References


