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Impact of Earnings Management on Dividend Policy of Indian Companies

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Abstract
The paper examines the impact of earnings management on dividend pay-out policy of Indian companies listed at the Bombay Stock Exchange. The study uses discretionary accruals to measure the extent of earnings management. Modified Cross Sectional Jones Model (1995) has been used to determine the earnings management. Dividend policy is being measured by dividend pay-outs. Results suggest that dividend payouts of sample companies are influenced by Return on Equity and self-financing ratio. Earnings management has no significant impact on dividend policy of companies. The study period is 2008 to 2013 and the sample size is 79.

Keywords: Earnings management, discretionary accruals, return on equity, dividend payout.

1. Introduction
Dividends have been in the limelight in financial research for quite a long time, more particularly since Linter's (1956) study on dividend distribution. Over time, different theories on dividend behaviour, such as the Dividend Irrelevance, Miller & Modigliani (1961), Bird in Hand, Tax Differential, the Clientele Theory, the Dividend Information Signalling, Transaction Cost Theory and Agency theory, have highlighted the importance of dividend policies in companies. These theories show how firms and investors value different dividend pay-out policies and how they might have changed over time.

Financial economists have acknowledged the after tax earnings of any business firm as an important internal source of investible funds and also a basis for dividend payments to shareholders. The decision to retain, reinvest or pay out after tax earnings in form of cash or stock dividend is important for the realization of corporate goal which is the maximization of the value of the firm.

Since dividends are paid out of the net earnings of a firm, managers are more interested in maximizing the earnings. This presents the idea of earnings management that can be defined as using the accounting choices to amend the reported earnings. Earnings management can also be defined as reasonable as well as legal decision making and financial reporting by managers with the intention to achieve stability in earnings.

This paper empirically examines the impact of earnings management on dividend pay-out policy of Indian companies. Regression analysis has been undertaken to find out the nature and extent of association of dividend policy with earnings management and other variables of the company.

II. Literature review
Dividend Policy
A number of studies have been conducted to analyze corporate dividend behaviour. Lintner's study is perhaps one of the pioneering studies on corporate dividend policy. Lintner's (1956) stated that dividend represents an 'active and primary decision variable' in financial policymaking in most of the situations i.e. dividend decision was taken first and retained earnings were its by-products. The primary determinants of change in dividend pay-out were the most 'recent earnings' and the 'past dividends paid'.

Bhat and Pandey (1994) studied the manager's perceptions of dividend decision for a sample of 425 Indian companies for the period 1986-87 to 1990-91. Results showed that the average dividend payout ratio was 54% for the samples of both profit making and loss making companies and the average dividend rate was in the range of 14.3% to 19.2%. It was also examined that payment of dividends depended on current and expected earnings as well as the pattern of past dividends, dividends were used in signalling the future prospects and dividends were paid even if there was profitable investment opportunity. Mishra and Narendra (1996)

analysed the dividend policies of 30 state-owned enterprises in India. Findings suggested that earning per share was a major factor in determining the dividend pay-out of State-owned enterprises.

Mohanty (1999) attempted to examine the behaviour of pay-out after the bonus issue and stated that bonus issuing firms yielded greater returns to their shareholders than those that did not make any bonus issue but maintained a steadily increasing dividend rate. Gomes (1998) and Zwiebel (1996) examined that dividends were given importance because these were believed to tackle the agency problems arising between corporate insiders and outsiders. Outside investors always preferred dividends over retained earnings because they feared that retained earnings might be used by insiders for their own benefits against the interest of outsiders.

Agency Cost Theory of Dividend Policy

Many studies find that payment of dividends reduces the agency cost by reducing the discretionary funds available to managers (Jensen and Meckling, 1976: Rozeff, 1982: Easterbrook, 1984; Crutchley and Hansen,1989; Holder et al.,1992; Saxena,1999). Rozeff (1982) identified that dividend payout ratio was negatively related to the percentage of stock held by the insiders. Using the log of the number of common stockholders to measure ownership dispersion, the study showed that the dividend payout was significant and was positively related to the number of common stockholders in the firm. The study concluded that higher dividend payments reduced agency conflicts between managers and shareholders.

Saxena (1999) investigated the determinants of dividend policy of NYSE-listed firms and found a strong influence of agency costs on dividend policy. Holder *et al.* (1998) investigated the relationship between dividend policy decisions and investment decisions of the firms and found a very strong influence of agency costs on dividend policy decision of the firm. Both Saxena (1999) and Holder *et al.* (1998) empirical results were consistent with Rozeff's (1982).

Earnings Management

Earnings management has been widely used in many corporate issues for explaining the impact on management's motivation to manipulate reported earnings. According to Healy and Wahlen (1999), earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports either to mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers. The motivation of earnings management was classified into three categories: Capital market expectations and valuation, contracts that are written in terms of accounting numbers and antitrust or other government regulation.

Based on these motivations, earnings management has been the incentive to react on the impact of corporate events such as initial public offerings (Aharony *et al*., 1993 and Teoh *et al*., 1998); seasoned equity offerings (Rangan, 1998 and Teoh *et al*., 1998); management buyouts (DeAngelo, 1986; Perry and Williams, 1994 and Wu, 1997); takeovers (Christie and Zimmerman, 1994).

Dividend Policy and Earnings Management

Miller and Rock (1985) and Ambarish *et al*. (1987) analysed that strong corporate governance practices reduced the chances of earnings management in a country. However sometimes earnings management was needed to maintain the dividend pay-out ratio of the firm as it was considered a signal of future growth perspectives of a firm in market. Lie and Li (2005) stated that the decision to increase or decrease dividend and its magnitude was determined by the premium placed by capital markets on dividends. Savos and Weber (2006) rejected this hypothesis and claimed dividend increase as a compensation for the poor returns of the shareholders. It was not necessary for the managers to manage their reported earnings for signalling high value of their firm as dividend pay-out could be effected by various factors as well.

Edelstein *et al*. (2008) examined that U.S. Real Estate Investments trusts were required by federal law to distribute 90% of their taxable income as dividends. It was feasible for them to manage their real earnings to meet regulatory dividend restriction by reducing revenue and increasing expenses. Both of these activities reduced the taxable income of REIT. Kato *et al*. (2002) and Kasanen *et al*. (1996) provided evidence of dividend driven earnings management. The results reveal direct relationship between earnings management and dividend pay-outs.

Dividend behaviour over time is explained by number of factors like past dividends, earnings, taxes etc. Most of the studies have tried to explain dividend driven earnings management. Empirical studies focusing primarily on earnings management driven dividends are extremely limited in Indian context.

III. Objective of the study

- To determine the impact of earnings management on dividend policy of Indian companies.

IV. Research methodology

Sample Selection and Period of the Study

The study was based primarily on the data collected from the Prowess database of the Centre for Monitoring Indian Economy (CMIE). The data used in the study related to those manufacturing and service sector companies listed on the Bombay Stock Exchange for which data was available in Prowess. The analysis was confined to BSE-100 Index as it represents the companies with high market capitalization and liquidity. The period of study was from FY 2008 to FY 2013. This was the period for which maximum financial information was available in database.

All non-financial manufacturing and service sector companies as per BSE-100 Index in Prowess were included in initial sample. Financial companies were excluded because their strategic decisions are driven more by regulatory requirements. The analysis was further restricted to companies that had no missing data with respect to dividend pay-outs for the period of study. The final sample of the study consisted of 79 companies.

Variables of the Study

Table 1 provides the description of the variables used in the study for the purpose of analyzing the relationship between dividend policy and earnings management.

Table 1: Variables used in the study

Variable	Abbreviation	Description
Dependent Variable		
Dividend pay-out	DPO	Dividend paid/Net Profit after Tax
Independent Variable		
Earnings Management	EM	Calculated by using the Modified Jones Model (1995)
Control Variables		
Return on Equity	ROE	Net Profit/Shareholder's Equity
Size of the firm	SIZE	Ln of total assets
Self-Financing Ratio	SFR	Retained Earnings/Change in capital employed

Earnings management has been measured by Discretionary Accruals. Modified Cross Sectional Jones Model (1995) has been applied to data to determine earnings management

Earnings Management

Discretionary accruals have been taken as a proxy of earnings management by a number of researchers. Discretionary accruals are calculated as the difference between total accruals and non-discretionary accruals. Total accruals can be calculated by following two methods:

Balance sheet approach (Healey (1985) & Jones (1991))

$$TA_t = \Delta CA_t - \Delta cash_t - \Delta CL_t + \Delta DCL_t - DEP_t$$

Where

ΔCA_t = Change in current assets in year t

$\Delta Cash_t$ = Change in cash and cash equivalents in year t

ΔCL_t = Change in current liabilities in year t

ΔDCL_t = Change in debt included in the current liabilities in year t

DEP_t = Depreciation and amortization expense in year t

Cash flow statement approach

$$TA_t = N.I_t - CFO_t$$

Where

TA_t = Total accruals in year t

$N.I_t$ = Net income in year t

CFO_t = Cash flows from operating activities in year t

Cash flow statement approach has been used to calculate total accruals in this study. Non-discretionary accruals have been calculated by using the following equation:

$$NDA_t = \alpha_1 .1/A_{t-1} + \alpha_2 .\Delta REV_t - \Delta REC_t / A_{t-1} + \alpha_3 .PPE/A_{t-1} + \varepsilon$$

Where

TA_t = Total accruals in year t scaled by lagged total assets

ΔREV_t = Revenues in year t less revenue in year t-1

PPE_t = Gross property plant and equipment at the end of year

ΔREC_t = Net receivables in year t less net receivable in year t-1

All of the variables have been scaled by lagged total assets

A_{t-1} = Total assets at the end of year t-1

α_1, α_2, α_3 = Firm specific parameters

ε = Residual, which represents the firm specific discretionary portion of total accruals

Discretionary accruals have been calculated by taking the difference between total accruals and non-discretionary accruals.

$$DA_t = TA_t - NDA_t$$

Where

NDA_t = Non-discretionary accruals

DA_t = Discretionary accruals

Regressing discretionary accruals with dividend policy

In regression analysis a predictive model is fitted to the data and that model is used to predict the values of dependent variable from one or more independent variables. To test the hypothesis Multiple Regression Analysis has been used. Multiple regression analysis seeks to predict an outcome from several predictors. Dividend payout (DPO) has been taken as a dependent variable. Discretionary Accruals (DA) has been taken as an independent variable and Self-financing ratio (SFR), Return on Equity (ROE) and Size of the firm (Size) as control variables. Method of least squares has been used to establish the line that best describes the date collected.

$$DPO_{it} = \beta_0 + \beta_1 (DA_{it}) + \beta_2 (SFR_{it}) + \beta_3 (ROE_{it}) + \beta_4 (SIZE_{it}) + \mu_{it}$$

Where

DPO = Dividend pay -out

DA = Discretionary accruals

ROE = Return on equity

Size = Size of the firm

V. Research hypothesis

Based on literature review, following research hypothesis has been formulated regarding earnings management and dividend policy of Indian companies:

H_{01}: *Earnings management has no significant impact on dividend policy*.

VI. Analysis and results

Descriptive Statistics

Descriptive statistics show that average DPO is 0.36 with maximum value of 3.74 and standard deviation of 0.31, implying that the sample companies pay fewer amounts as dividend. Average SFR of sample companies is 0.80 which is more than average DPO indicating a negative relationship between dividend pay-outs and retained earnings. Mean value of DA is 0.01 while its maximum value is 33.35 which reflect high level of standard deviation in DA among sample companies. ROE show stable position of companies as evident by a smaller amount of standard deviation of 0.18. Mean SIZE of sample companies is 8.88 while maximum and minimum are 12.43 and 5.03 respectively.

Table 2: Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
DPO	0.36	0.31	0.05	3.74
DA	0.01	4.08	20.52	33.35
SFR	0.80	1.01	-2.46	9.41
ROE	0.25	0.18	0.01	1.34
SIZE	8.88	1.16	5.03	12.43

Multivariate Analysis

Regression results of 2008 show that DA does not have any significant impact on DPO. However its coefficient moves in negative direction. This leads to the acceptance of null hypothesis. SFR, ROE and SIZE also have no impact on DPO as evident by insignificant t values. Adjusted R^2 is very low and *f* -value does not confirm the validity of the model.

DA has insignificant positive relationship with DPO in 2009. SFR and SIZE have negative relationship with DPO. ROE is positively related to DPO but these are statistically insignificant. As DA is insignificantly related to DPO this leads to the acceptance of null hypothesis. Adjusted R^2 has improved and *f* -value confirms the validity of the model.

In 2010, DA does not have any impact on DPO as its t value is insignificant. Its coefficient moves in positive direction. Thus a null hypothesis is accepted. ROE is significantly positively related to DPO. SFR and SIZE have insignificant impact. Adjusted R^2 value has increased in 2010 and *f* -value confirms the validity of the model.

Regression estimates of 2011 show that DA, SFR and SIZE have insignificant relationship with DPO. ROE has significant positive relation with DPO. Based on the regression results null hypothesis is accepted. Explanatory power has improved as showed by Adjusted R^2 of 0.36 and *f* -statistics confirm the model fit.

In 2012, DA and SIZE have insignificant positive relationship with DPO. SFR is significantly negatively associated with DPO while ROE is significantly positively related to DPO. Regression results lead to the acceptance of hypothesis. Adjusted R^2 is 0.26and *f* -value confirms that the model is fit at significant level.

DA and SIZE have no significant impact on DPO in 2013 which leads to acceptance of null hypothesis. SFR is significantly negatively related while ROE is significantly positively related to DPO. Adjusted R^2 is 0.38 and significant *f* statistics shows that the model is fit.

Table 3: Cross-sectional Regression Results

Year		Constant	DA	SFR	ROE	SIZE	Adj. R^2	*f*- value
2008	Coefficient	0.63 (0.89)	-1.06 (-0.23)	-0.05 (-0.65)	-0.14 (-0.26)	-0.01 (-0.13)	0.02	0.19
2009	Coefficient	0.81** (2.05)	8.10 (0.46)	-0.03 (-1.16)	0.42 (1.54)	-0.06 (-1.30)	0.11	1.38
2010	Coefficient	0.33 (0.98)	8.49 (0.83)	0.01 (0.13)	0.51** (2.39)	-0.021 (-0.57)	0.14	1.81
2011	Coefficient	0.11 (0.31)	-1.05 (-1.21)	-0.07 (-1.23)	0.61*** (4.40)	0.01 (0.28)	0.36	6.26
2012	Coefficient	0.47 (1.45)	2.80 (0.40)	-0.11** (-2.36)	0.45*** (3.21)	-0.02 (-0.56)	0.26	3.83
2013	Coefficient	0.04 (0.10)	1.43 (0.02)	-0.13*** (-2.27)	0.75*** (4.77)	0.03 (0.65)	0.38	6.66

Note: *, **, *** significant at 10%, 5%, and 1% (two-tailed), respectively.

VII. Conclusion

Based on the results it is concluded that discretionary accruals do not have any impact on dividend policy of the companies. The positive coefficient of DA during the study period have showed that there has been earnings management but not for the purpose of dividend announcement or dividend avoidance. There could be a number of other intentions behind earnings management. This is in conformity with the literature that shows various factors as determinants of dividend pay-out and earnings management is not among those determinants. ROE has shown significant positive relationship with DPO which implies that profitable companies seem to pay-out larger amount of dividends. This is consistent with the Higgin (1981) sustainable growth model which states that the absence of financial constraint for the companies leads to payment of surplus funds. SFR is negatively related to DPO which implies that if a company pays dividend it will not use internal sources of finance for meeting its future financial requirements. There is a little evidence that Size affects the dividend policy in a significant manner. The scope of the study can be extended to a bigger sample and a longer time horizon. Panel data analysis can be used to get more reliable results.

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