

## Earning Management and Dividend Policy: Empirical evidence from Pakistani listed companies

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**Abstract:** The study is an effort to find out the impact of earning management on dividend policy in Pakistan. A set of listed companies from Karachi stock exchange (KSE) 100 indexes have been investigated to analyze the relationship from the year 2005 to 2009 in Pakistan. Dividend policy has been measured by dividend payout whereas earning management has been quantified by discretionary accruals and discretionary accrual is used as a proxy to determine earning management. Modified cross sectional model (1995) has been used to measure discretionary accruals. Regression analysis shows that earning management has impact on dividend policy that rejects our null hypothesis. But coefficient shows that the relationship is so weak that is near to no relationship. Reason behind this no impact is economic decline period, because earning management changes every year. In the decline period our earning management was increase and the companies starts downsizing divided payment.

**Key words:** Dividend Policy, Earning Management, Karachi Stock Exchange.

### 1. Introduction:

Earning management and dividend policy is among the popular topics discussed in today's modern business. In modern businesses it is duty of the manager to make a number of decisions about the finance of the corporation. It is an important decision that the manager must come across the firm earning management and dividend policy.

Earning management is manipulation or control of company's financial income. If there are no investment opportunities then it is the responsibility of management to distribute those funds as dividend. Earning is one of the important factors that should keep in mind by the interesting parties of the companies. The quality of earning is meaningful when different companies satisfy to manage their earnings with the help of the generally accepted accounting standard (GAAS). It is very difficult to calculate earning management because of the violation of the accounting standards done by the auditors (Levitt). It can be calculated through discretionary accruals which we used as a proxy for earning management in our research. Discretionary accruals cannot be calculated directly, it can be obtained by adopting any formula or model. We have used modified Cross Sectional Jones model (1995) in our research to calculate discretionary accruals.

Dividends are paid by companies to their shareholders members. When companies earn profit they pay a portion to their shareholders and remaining is kept by company as retained earning. That portion of profit

(retained earning) is reinvested in market. While paying dividend it is also decided whether a fixed amount has to pay as dividend or some percentage of total income will be distributed as dividend. There are different factors that may be called as determinants of dividend policy such as size of firm, cash balance and capitalization of market. We know Pakistan is developing country and its economy is not flourishing with high growth. Mostly large firm are owned and controlled by families so there are many cases in which conflicts occur between management and shareholder.

Earning management is a method which is used by management of a corporation to smooth their earnings. In our study we tried to assess that whether earning management creates any impact on dividend policy. Healy (1999) suggested that managers usually manage their earning to increase the level of their bonuses; it is one of the first managerial incentives to managers that are to be tested by using accrual. Managers use their firm inside knowledge about the firm business situation and then make a decision about the dividend and earning. Serita and Hanaeda (2007) make a survey about emerging markets in which they suggested that there is positive trend for firm to maintain constant dividends and some firms do not adjust dividend in respect to financial need for investment.

### **1.1 Importance**

Earning management and dividend payment are integral part of an organization. Firms manage their earnings and use them according to their desire. Dividend is distributed equally among all shareholders. A shareholder receive dividend according to his proportion of shares in the firm. Dividend can be paid regularly on annual basis. Statistical data of previous years shows that 50 percent of market return comes from dividend. It shows that dividend has much importance in market both economically and also from investor's point of view. When companies pay dividend to its shareholders, then more investors are attracted toward that companies and value of the companies automatically increase. Most of large scale companies that are registered in Karachi stock exchange pay dividend to their shareholders. Companies pay dividend to its shareholders for providing benefits to them. It shows the future progress of company.

Dividend policies are guidelines and combination of rules how dividend payments are to be made to its shareholders. When the dividend policy is described in better manner and written copy of that policy is available to shareholders, then they will be fully acknowledged how this policy is working. If the dividend policy is not specifically described, then investors look at history of the firm and observe its dividend payment patterns and their earnings. If the companies previous performance is better and that is earning profit continuously and paying dividend regularly. It shows growth of the company. On the other hand if the previous performance of company is not good than investors hesitate to make investment in that company. An effective dividend policy described that dividend payment pattern is helpful for both firms that are performing well or going on loss.

Results of our study will help owners of large scale and small scale companies while making their dividend policy. It will also helpful for investors who take into account the earnings of corporations before investing.

### **1.2 Objectives and organization of study**

This study is conducted for the following purpose.

- To find out that there is any impact of earning management on dividend policy.
- To determine that whether any significant relationship exists between earning management and dividend payout policy among the listed Pakistani firms.

Organization of the paper is in the way that first chapter consists of introduction; second chapter is literature review of studies related to our research. In third chapter we discussed research methodology and then in fourth chapter we performed data analysis and results and in last chapter conclusion and references have been presented.

## **2. Literature Review**

Lot of studies has been conducted in past, some of those studies are discussed here under. Keisuke Nitta (2006) studied that how shareholder's value can be increased by making dividend policy in connection with takeover defenses. The resulted outcome shows that dividend jumps and repurchasing of shares enhance

share prices. Sava Savov (2006) in his research tried to investigate the relationship between earning management and investment and the impact of both on dividend payments. Results of the study showed that earning manipulation and investment are positively related but dividend payment is negative relationship with earning. Syed Zulfiqar, Hui Yuan and Nousheen (2010) conducted research on the relation to find out the impact of earning management on dividend policy of Pakistan and china. Results of the study depicts that discretionary accruals do not have any impact on the policy of dividend in both the countries.

Hafeez and Atia (2010) studied a relationship between the structure of firm's ownership and Dividend payout of listed firms in Pakistan. Result of the study shows that Mean level of corporate ownership is increasing from year 2002 to 2006. It is also found that direct ownership is also increased from 2002 to 2006. Cheng and Leung (2010) studied that whether the insiders (director) get positive advantage of the information they have about the firm position of stocks trading in the market before any announcement made by the firms. The results found in research showed that there is strong relationship among any pre-event net-insider trading activities which raise to that there is strong positive net-insider buying activities before announcement of any good news and it is significantly negative net-insider buying activities before any bad news announcement of loss or abnormal returns..

### 3. Research Methodology

The purpose of our study is about the relationship of the dividend payout policy on the earning management. Our methodology consists of two variables that are and earning management and dividend payout.

The sample has been selected for our study from Karachi stock exchange 100 indexes. The data is collected from 23 companies the selection of companies is based on cross sectional. We have collected the data from SBP balance sheet analysis and annual reports of companies on their websites. We have excluded financial companies from our data because their capital structure and profits are different. The data which we could not found is also excluded from our sample of research.

#### 3.1 Hypothesis

For achieving our results we have developed a hypothesis.

$H_0$  = Earning management has no impact on dividend policy

$H_1$  = Earning management has impact on dividend policy

#### 3.2 Models

In order to check the hypothesis for examining our study we find out different models from the literature to measure dividend policy and earning management performed by companies.

##### 3.2.1 Model used for measurement of dividend payout

In this paper we take dividend policy is our dependent variable and earning management as independent variable.

We will estimate dividend policy by using following equation:

$$\text{Dividend payout (DPO)} = \frac{\text{Dividend Paid}}{\text{Net profit after tax}}$$

##### 3.2.2 Model used for earning management:

As mentioned above earning management will be independent variable for our study. In our literature discretionary accruals have been as a proxy of earning management. Because we cannot find earning management directly. Different researcher has used Discretionary accruals as a proxy for earning management to find out the accurate results. Discretionary accruals can be found out by two different approaches.

- 1- Balance sheet approach
- 2- Cash flow statement approach

### 3.2.2.1 Balance sheet approach:

Before calculating discretionary accruals we have to calculate total accruals that can be calculated by using balance sheet approach. It is much lengthy as compare to cash flow approach. In this approach we calculate, whereas:

$$TA = \Delta CA - \Delta Cash - \Delta CL + \Delta DCL - DEP$$

The equation which is used to calculate total accrual is as follow:

Change in current asset in t year which is mentioned by  $\Delta CA$

Change in total cash in t year which is mentioned by  $\Delta Cash$

Change in current liabilities in t year which is mentioned  $\Delta CL$

Change in debts that includes in liabilities which is mentioned as  $\Delta DCL$

Total depreciation expenses in t year that is mentioned by  $DEP$ .

### 3.2.2.2 Cash flow approach:

Another and most commonly used approach for calculating total accruals is cash flow approach. Most of researchers preferred to use cash flow statement approach for calculating discretionary accruals instead of balance sheet approach. We also used cash flow approach in our methodology. Main reason behind adopting this approach is reliable results. The results are more accurate as compare to balance sheet approach. In this approach we calculate following variables.

$$TA_t = N.I_t - CFO_t$$

Following equation is used to calculate the total accruals.

$N.I$  = Net Income or Profit in t year

$CFO$  = Net Cash flow from operating activities in t year

To analyze both approaches, we found that more researchers prefer cash flow approach in respect of balance sheet approach. Collins and Hriber (1999) finds that using balance sheet approach to find out total accruals is inferior some circumstances to cash flow statement based approach. Therefore, we also used cash flow statement approach in our study to find out total accruals.

In the researchers view total accruals are basically not earning management. Earning management can only be determined when discretion for those accruals is with the authorities. So, total accruals can be divided in two parts discretionary accruals and non discretionary accruals. After determine total accruals, non discretionary accruals are subtracted from total accruals to get discretionary accruals.

To calculate discretionary accruals researchers used different methods like The DeAngelo Model (1986), The Healy Model (1985), The Jones Model (1991) and Modified Jones Model (1995). We used Modified Jones Model in our research model to calculate discretionary model because it is the most recent model.

### 3.3 Measurement of Discretionary Accruals:

Before calculating discretionary accruals we have to calculate non discretionary accruals. For that we have solve following equation.

$$NDA_t = \alpha_1 [1/At-1] + \alpha_2 [(\Delta Revenue - \Delta Receivable)/At-1] + \alpha_3 [PPE/At-1]$$

Whereas:

$At-1$  is change in total assets at the end of the year t-1

$\Delta$  Revenue is change in total revenue as compare to previous year t-1

$\Delta$  Receivable is change in total receivable as compare to previous year t-1

PPE is property plant and equipment at the end of year t

$\alpha_1$ ,  $\alpha_2$  and  $\alpha_3$  are the firm specific parameters

After calculating the value of Non Discretionary accruals we will calculate Discretionary accruals by adopting following formula.

$$DA_t = TA_t - NDA_t$$

Whereas  $NDA_t$  is firm non discretionary accruals in year t, And  $DA_t$  is discretionary accruals in year t.

Now we have calculated both variables dependent variable which is dividend payout by using simple formula of DPO and independent variable which is Discretionary accruals by using modified Jones model.

### 3.4 Regressing Discretionary accruals with Dividend policy

To test the hypothesis among the variables we used such analysis in panel data.

$$DPO_t = \alpha + \beta_1 (DA_t) + \beta_2 (SFR_t) + \beta_3 (ROE_t) + \beta_4 (\text{size of the firm } t) + \mu_t$$

Whereas: DPO is dividend payout

DA is discretionary accruals

SFR is the self finance ratio of the firm

ROE is the return on equity

## 4. Data Analysis and Discussion

In this section we have analyze our data according to model we have explained in methodology. We have collected our data from different sectors. We include chemical, fertilizer, cement, petroleum, engineering, tobacco, energy etc sectors in our research. The whole data is cross sectional. We calculated Non discretionary Accrual separately for each year.

We have analyzed our data by using descriptive analysis, correlation matrix and Regression analysis.

### 4.1 Descriptive Analysis:

The table shows descriptive data of companies which are included in our research. Mean value of DPO is 0.4675 which shows the average payment of dividend to shareholders. While Standard Deviation of dividend payout is 0.3934 which shows the fluctuation of data. Whereas minimum dividend payout is -0.38345 and maximum dividend payout is 2.55109. Aon other hand if we look at Discretionary Accruals, values of mean and S.D are so high which show high mean value and high fluctuation.

**Table 4.1 Firm Descriptive Analysis**

	<b>DPO</b>	<b>DA</b>	<b>Size</b>	<b>ROE</b>
Mean	0.46758	513.001	8.69862	0.70701
S.D	0.39439	4720.36	1.35029	2.41694
Minimum	-0.3844	-16959	6.22535	-0.0572
Maximum	2.55109	27244.5	11.4479	16.5223
Count	115	115	115	115

### 4.2 Correlation Matrix

As mentioned in above table size of firm and Return on equity are insignificant. However size of firm and DA moves negatively. Presence of non correlation between independent variables proves that there is no multicollinearity among variables

**Table 4.2 Firms Correlation Matrix**

	DPO	DA	Size of firm	ROE
DPO	1			
DA	-0.203	1		
Size of firm	-0.096	0.166	1	
ROE	0.108	0.294	0.204	1

### 4.3 Regression Analysis

Above table shows there is negative relationship between earning management and dividend payout ratio. But that relationship is so weak which is near to no relationship.

Coefficient of DA shows that there is negative relationship which means companies with high earning management pay fewer dividends. Size of firm is negatively related with dividend payment which means big companies pay less dividend and small companies pay more dividend. Return on equity is positively related with dividend which means more return on equity will result in more dividends. But t-statistics shows that both the control variables have insignificant relationship with dividend payout.

R square of our study is 5% which is very low. But as data consist of time series data and cross section data, so it is acceptable range. In study of Syed Zulfiqar R square of china is 3% which is accepted.

**Table 4.3 Firms Regression Analysis**

Variable description	Coefficient	T Statistics
Intercept	0.56869	2.29634
DA	-2E-05	-2.129
Size	-0.012	-0.4308
ROE	0.01722	1.11784
F statistics	2.19179	
R square	0.05592	
Adjusted R square	0.03041	

When we make comparison of our results with previous research, there is no big difference with them. Sava Savov (2006) finds in his research that earning management and investment has negative relationship with dividend payment. But our results are contrary with the results of Syed Zulfiqar's (2010) study, he concluded that earning management has no impact on dividend policy and the relationship among two variables is positive. The reason behind this difference is that Syed Zulfiqar collected data from 2003 to 2007 and period of 2003 to 2006 was economically at boom. While the data we have collected is from 2005 to 2009 and the data of boom period is not included in our research. But there was economic decline from 2007 to 2009 which is affecting our results and due to that crunch period our results are different from Syed Zulfiqar.

### 5. Conclusion

From the results we determined it has been clear that earning management is negatively relationship with dividend policy but this relationship is so weak that means it is nearly to no impact. From our econometric analysis we conclude that:

- Discretionary accruals have impact on dividend policy in Pakistan.
- Big companies pay less dividend and small companies pay more dividend in Pakistan.
- Our control variable also shows insignificant impact on our dependent variables.

In investors point of view there should not be impact of earning management on dividend policy. If there is no effect of earning management on dividend policy, then investors will not hesitate in investing any company. Because they will be assure that the pattern of dividend will not be changed due to change in earning management.

In our study we have found that there is earning management in Pakistan, but that is not for the purpose of dividend announcement. Earning management is made by owners and managers to get maximum benefits from their profits. In Pakistan there is negative relationship between earning management and dividend payout. It may be due to financial crisis in world. This research offers a wide range to look at what are the other factors that may involve in effecting the pattern of dividend payment

#### **Limitations:**

Discretionary accruals are calculated by taking the difference of NDA and total accruals. These Non Discretionary Accruals are based on the difference of two years of related variables. If in last year company was not performing earning management that may destroy the current years earning management results. Earning management change every year or after two years that may affect the results of Discretionary accruals.

#### **5.1 Policy Implications**

Our empirical finding revealed that the relationship between the earning management and dividend policy is significant. That presence of significance relationship is not suitable for investors. However the relationship between both variables in our research is so weak that is near to no relationship. But we strongly recommend that there should not be any relationship between earning management and dividend policy. That significant relationship can be reduced by controlling on discretionary accruals. This research will help the management that by reducing the operational expenses companies will effectively manage their earnings. So the impact of earning management on dividend policy can be reduced.

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