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EFFECT OF EARNINGS MANAGEMENT ON FINANCIAL PERFORMANCE OF SELECTED INDIAN COMPANIES

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Abstract

Earnings management occurs when management uses discretion in financial reporting and in structuring transactions with the objective of securing private gains. This study aims at analysing the magnitude of discretionary accruals with regard to potential earnings management for selected Indian Pharmaceutical companies. Tobins' Q and ROA have been used as dependent variable to identify effect of earnings management decision. De-Angelo Model has been used for calculating discretionary accruals with regard to potential earnings management for the period of 2006-2016. The study found that DA has positive correlation with firm value as represented by Tobin's Q and positive significant correlation with ROA which is used as proxy for financial performance. In case of Divis Laboratories Ltd and Piramal Enterprises Ltd, Discretionary accruals have positive significant impact on Firm value. For almost all the selected companies Except Cadila healthcare ltd., Discretionary Accruals have positive impact on profitability for the period under study.

Key Words : *Earnings Management, Tobin's Q, ROA*

INTRODUCTION

Investors and analyst look to earnings to determine the attractiveness of a particular stock. Companies with poor earnings prospects will typically have lower share prices than those with good prospects. Earnings management is a strategy used by the management of a company to deliberately manipulate the company's earnings so that the figures match a pre-determined target. This practice is carried out for the purpose of income smoothing. Thus, rather than having years of exceptionally good or bad earnings, companies will try to keep the figure relatively stable by adding and removing cash from reserve accounts. A very important dimension of earnings management is that earnings manipulation is usually not the result of an intentional fraud, but the culmination of a series of aggressive interpretations of the accounting rules and application of aggressive operating activities. The end result is misstatement of the financial results by the people involved and realization by them when it gets too late .Earnings manipulation begins with a track record of success. The company or division has posted significant sales and earnings growth over recent years. Their stock price trades at high price earnings multiple but unfortunately, it is becoming very difficult for the company to maintain the sales and earnings growth as per the analysts' expectations. The management goes for creative accounting practices to manage their earnings. Earnings management is choosing an accounting treatment that is either opportunistic (maximizing the utility of management only) or economically efficient. Earnings management is the creative use of different accounting techniques to make financial statements looks better.

REVIEW OF LITERATURE

Mahdi Safari Gerayli et al (2011) provide empirical evidence on the impact of Audit Quality on Discretionary Accruals, as a measure of Earnings Management, in Iranian listed firms. The results revealed that Discretionary Accruals were found to be negatively related to Auditor size and Auditor industry Specialization. **Aurangzeb et**

al (2012) analyzed the impact of earnings management on dividend payout policy. The sample was based on non-financial firms and consisted of average 358 firms over a period from 1966 to 2008. The quantitative research approach was used because it plays with numbers and gives accurate results and also multiple regression analysis was performed to identify effect of earnings management on dividend pay-out policy. Results explored earning management and all control variables have negative relation with dividend payout policy.

Sandeep Goel (2012) has analyzed the earnings management practices of corporate enterprises in India. The study specifically aims to examine the magnitude of discretionary accruals in regard to potential earnings management and explore earnings management practices further among the units on the basis of industry classification. DeAngelo Model has been used for calculating discretionary accruals with regards to potential earnings management for the study .The results revealed that there was definite presence of accrual management in the sample companies and most of the units have been found to be exercising income-increasing discretionary accruals. **Razie Fattahi et al (2014**) examined the impact of earnings management on the value relevance (explanatory power) of the accounting information. The sample comprised of 63 firms listed on the Tehran Stock Exchange over a period from 2003 to 2011. To determine the earnings management, Leuz model and correlation analysis has been used. The findings reveal that there is no significant relationship between earnings management and value relevance of the accounting information. **Mehmet Aygun et al (2014)** examined the impact of corporate ownership structure and board size on earnings management calculated Jones Model. The results were consistent with the previous studies and indicated that the institutional ownership and the board size have a negative significant effect on the earnings management while the effect of the managerial ownership on the earnings management has positively statistically significant. **Usman Ali et al (2015)** evaluated the impact of firm size on earnings management for the textile sector of Pakistan. Earnings management was measured through discretionary accruals by using modified Jones model. The statistical results of this study revealed that there is positive and significant impact of firm size on earnings management.

RESEARCH METHODOLOGY

The basic problem of this study is to analyse how companies under study manipulate their earnings and paint an overly positive picture of a company's business activities and financial position and what is the effect of such practices on financial performance and firm value.

Objectives of the study:

1. To analyse the impact of Earnings management on Firm value as measured by Tobin's Q.
2. To analyse the impact of Earnings management on Firm Performance as measured by ROA.
3. To highlight the major areas of concern in earnings management in these undertakings for their future viability.

Sample Size:

To study impact of earnings management practices on financial performance, 10 listed companies from Indian Pharmaceutical Sector have been selected. Secondary data have been used for 11 years commencing from 2006 and ending in 2016. Selected companies are:

1. Cipla Ltd
2. Lupin Ltd
3. Sun Pharmaceutical Industries Ltd
4. Cadila Healthcare Ltd
5. Divi's laboratories Ltd
6. Dr.Reddy's laboratories Ltd
7. Torrent Pharmaceuticals Ltd
8. Aurobindo Pharma Ltd
9. Biocon Ltd
10. Piramal Enterprises Ltd

Tools and Techniques:

There are various earnings management models, developed specifically for detecting earnings management. The present study uses the following De-Angelo model to estimate discretionary accruals.

The DeAngelo Model:

The DeAngelo Model is considered here for computing discretionary accruals. It is also referred to as discretionary accrual model. The discretionary portion of accruals in the DeAngelo Model is the difference between total accruals in the event year t scaled by total assets (At-1) and nondiscretionary accruals (NDAt).

The measure of nondiscretionary accruals (NDAt) rests on the total accruals (TAt-1) of the last period. In other words,

$DAC_{it} = (TA_{it} - TA_{it-1}) / A_{it-1}$

Where,

DAC_{it} is discretionary accruals for firm i in period t;

TA_{it} and A_{it-1} are total accruals and total assets for period t and t-l for firm i.

Multiple Regression Analysis:

The following Multiple Regression model is used to analyse impact of Earnings management on financial performance and Firm value.

Model-1:

$Tobin's\ Q = \beta_0 + \beta_1 * DA + \beta_2 * FLEV + \beta_3 * CR + \varepsilon_{it}$

Model-2:

$ROA = \beta_0 + \beta_1 * DA + + \beta_2 * FLEV + \beta_3 * CR + \varepsilon_{it}$

Where,

Tobin's Q = A Measure of firm value

ROA = Return on Assets as a measure of firm Profitability

DA = Discretionary Accruals

FLEV = Financial Leverage

CR = Current Ratio

ε =Error term

Table No: 1

Description of Variables

Variables	Measurement
Total Accrual	*Net Income-Cash Flow from operating activities*
Discretionary Accruals	$\frac{Total\ Accrual(CY) - Total\ Accrual(PY)}{Total\ Assets(PY)}$
Tobin's Q	$\frac{Market\ value\ of\ Equity + Book\ value\ of\ Debt}{Book\ value\ of\ Total\ Assets}$
Return on Assets	$\frac{Net\ income\ after\ tax}{Total\ Assets}$
Financial Leverage	$\frac{Long\ Term\ Debt}{Total\ Assets}$
Current Ratio	$\frac{Current\ Assets}{Current\ Liabilities}$

DATA ANALYSIS & INTERPRETATION

In order to identify effect of earnings management on financial performance, multiple regression analysis is carried out. The results are as follows:

- **Descriptive statistics:**

The followings table-2 shows the descriptive statistics of the variables under study.

Table-2

Descriptive statistics

Variables	Mean	Std. Deviation	CV
Q	0.3885	0.15123	0.3893
ROA	13.1789	10.79520	0.819128
DA	0.0563	0.62397	11.08295
FL	0.1607	0.14542	0.904916
CR	2.7014	1.32617	0.49092

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Interpretation:
The table-2 shows the Mean and Standard deviation for each variable considering 11 years. Coefficient of variance is also calculated by dividing Standard deviation by Mean. Generally C.V. with least value gives good method of performance. Here, Q has the least value of C.V. which is 0.389266. It shows that Q is most consistent variable. Discretionary Accruals has the highest coefficient of variation indicating least consistent.

Table No- 3
Overall Correlation Analysis

Variables	Tobin's Q	ROA	DA	SIZE	FL	CR
Tobin's Q	1.000 (0.00)					
ROA	-0.348* (0.000)	1.000 (0.000)				
DA	-0.142 (0.138)	0.766* (0.000)	1.000 (0.00)			
FL	0.854* (0.000)	-0.187* (0.050)	-0.059 (0.541)	-0.96 (0.318)	1.000 (0.00)	
CR	-0.119 (0.217)	0.420* (0.000)	0.308* (0.001)	-0.96 (0.316)	0.280* (0.003)	1.000 (0.00)

*Indicates level of significant @ 5%.

Interpretation:
The table-3 shows correlation between the variables under study. Tobin's Q has negative correlation with DA whereas positive significant correlation with financial leverage. ROA has positive significant correlation with Discretionary Accrual and current ratio. ROA is inversely significantly correlated with financial leverage. Discretionary Accrual has positive significant correlation with Current Ratio.

Multiple regression analysis:

Table-4 Result of Multiple Regression Analysis- Model-1

Variables	Cipla ltd	Lupin Ltd	Sun Pharma Ltd	Cadila Health care Ltd	Divis Lab. Ltd	Dr,Reddy's Lab. Ltd	Torrent Pharma. Ltd	Aurobindo Pharma Ltd	Biocon Ltd	Piramal Enterprises Ltd
(Constant)	0.582 (0.000)	0.432 (0.000)	0.210 (0.001)	0.545 (0.000)	0.262 (0.000)	0.294 (0.003)	0.535 (0.000)	0.668 (0.000)	0.367 (0.003)	0.492 (0.005)
DA	0.375 (0.161)	-0.002 (0.980)	-0.292 (0.197)	0.072 (0.361)	0.242* (0.039)	0.195 (0.168)	0.042 (0.485)	0.025 (0.858)	-0.120 (0.367)	0.088* (0.049)
FL	0.919* (0.006)	1.020* (0.000)	1.121* (0.000)	0.851* (0.000)	1.236* (0.000)	0.977* (0.004)	0.542* (0.004)	-0.010 (0.983)	0.512 (0.347)	1.299* (0.000)
CR	-0.073* (0.006)	-0.063* (0.003)	-0.022* (0.033)	-0.114* (0.00)	-0.042* (0.001)	-0.042* (0.014)	-0.070* (0.033)	0.015 (0.737)	-0.059 (0.063)	-0.136* (0.018)
R^2	0.953	0.991	0.977	0.981	0.989	0.866	0.819	0.911	0.729	0.924
F Change	30.343	157.123	64.894	77.032	139.572	9.700	6.776	15.320	4.041	18.189
Sig. F	0.000	0.000	0.000	0.000	0.000	0.009	0.021	0.003	0.063	0.002

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Interpretation:

Results of Multiple Regression Analysis- Model-1 indicate that financial leverage is having highest contribution with positive significant impact on Q for almost all the selected companies except for Aurobindo Ltd and Biocon Ltd. There is a negative significant impact of CR on Q for all the selected companies except Aurobindo Pharma Ltd and Biocon Ltd. In case of, Divis Lab. Ltd and Piramal Enterprises Ltd, DA has positive significant impact on Q. It means with increase in DA, Tobins'Q will increase indicating that these companies are exercising earnings manipulation to inflate firm value. R square value for all the Models is more than 0.072 and hence all models are powerful and can be used to identify effect of DA on firm value. Financial Leverage and current ratio also have effect on firm value over the period of study.

Table No.5 Result of Multiple Regression Analysis-Model-2

Variables	Cipla ltd	Lupin Ltd	Sun Pharma Ltd	Cadila Healthcare Ltd	Divis Lab. Ltd	Dr,Reddy's Lab. Ltd	Torrent Pharma. Ltd	Aurobindo Pharma Ltd	Biocon Ltd	Piramal Enterprises Ltd
(Constant)	20.355 (0.007)	15.517 (0.008)	3.442 (0.764)	13.558 (0.053)	20.105 (0.045)	4.850 (0.492)	2.145 (0.788)	0.415 (0.960)	-2.867 (0.852)	-6.700 (0.618)
DA	8.411 (0.593)	5.295 (0.622)	61.12 (0.340)	-0.285 (0.977)	25.881 (0.454)	11.745 (0.407)	10.611 (0.328)	30.33* (0.051)	70.80* (0.022)	6.405 (0.167)
FL	-14.691 (0.340)	-36.816* (0.033)	-42.865 (0.114)	-65.656* (0.006)	-31.112 (0.312)	-51.636 (0.062)	-33.304 (0.154)	-45.987 (0.332)	51.430 (0.604)	-23.400 (0.307)
CR	-0.240 (0.837)	4.081* (0.030)	3.909 (0.149)	8.557* (0.004)	2.414 (0.398)	2.977 (0.063)	7.074 (0.163)	5.051 (0.241)	5.963 (0.263)	9.083 (0.105)
R^2	0.763	0.840	0.692	0.885	0.385	0.585	0.718	0.771	0.663	0.974
F Change	4.831	7.851	3.366	11.568	0.941	2.115	3.827	5.061	2.955	55.745
Sig. F	0.044	0.015	0.090	0.006	0.500	0.197	0.070	0.040	0.114	0.000

* Indicates level of significant @ 5%.

Interpretation:

Result of Multiple Regression Analysis- Model-2 indicates that financial leverage is having highest contribution with negative significant impact on ROA except for Biocon Ltd. There is a positive significant impact of CR on ROA for Lupin Ltd and Cadila Healthcare Ltd. Only Aurobindo Ltd and Biocon Ltd. have positive significant impact of DA on financial performance. This indicates that these companies are using discretionary accruals practices to show overly picture of their financial position.

FINDINGS

From the above analysis, it is found that Tobin's Q has negative insignificant correlation with DA whereas ROA has positive significant correlation with Discretionary Accrual. It indicates that manipulation in financial statements has effect on firm value and profitability and selected companies may make an attempt to inflate overall financial reputation to attract investors. In case of Divi's Laboratories Ltd and Piramal Enterprises Ltd,

there is significant positive effect of DA on firm value which indicates presence of earnings manipulation in financial statement. In case of Aurobindo pharma and Biocn Ltd also, there is positive significant effect of DA on firm profitability which indicates the presence of earnings managements.

CONCLUSION

Discretionary accruals act as a proxy to earnings manipulation. This study examines effect of accrual management on firm value and profitability in the selected pharmaceutical companies in India. Divi's Laboratories Ltd and Piramal Enterprises Ltd are using accrual management to glorify the firm value and Aurobindo pharma and Biocon Ltd has used earnings management practices to show better profitability. It is also found that selected companies have effect of Leverage and Current Ratio also on profitability and firm value. It can be concluded that for the selected companies of pharmaceutical companies, it is not only accruals management but some other financial factors are also contributing to financial performance for the period under study.

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