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[Shirt Communication]

## Effect of Financial Performance on Earnings Management in the Drug Distribution Industry

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### Abstract

**Purpose** – To mislead shareholders about a firm's actual economic performance, managers frequently manage dividends. Earnings management also affects performance reviews. Managers attempt to manage reported earnings caused by current economic events to accurately reflect their current performance.

**Research design, data, and methodology** – The sample consisted of 312 company-years from companies in the pharmaceutical distribution industry listed on the Tehran Stock Exchange. A study period from 2004 to 2014 was selected. In this study, a model for measuring the performance of the net profits to total assets of a division of Jones was used to measure earnings management.

**Results** – This study found a negative correlation between corporate performance and earnings management.

**Conclusions** – The results for the earnings management company indicated a significant inverse relationship. Therefore, the company's performance weakened as its earnings management activity increased. In other words, the results showed that the company's performance-based accruals earnings management, the actual management of profits, and the general level of earnings management had significant inverse relationships. Thus, as the company's profits declined, earnings management activity increased.

**Keywords:** Company Performance, Earnings Management, Drug Distribution Industry.

**JEL Classifications:** D30, E40, E50.

### 1. Introduction

The primary goal of financial accounting is to provide useful information for investors to predict economic performance. To report income as a primary source for decision-making by investors, managers and analysts has been well documented and reported profits in various ways, such as providing a basis for calculating the tax, a measure for assessing the success of the company's performance, the criteria for determining the amount of divisible profits, a measure to manage distribution of profits, a measure to manage an economic unit and the other to help the economy.

Also, because the present and future value of a company's profits, profit determination are the most important. Managers often in order to mislead shareholders about the actual economic performance, dividend manage. This earnings management through real activities manipulation or manipulating accounting figures done, and health care messaging reduces profit, risk and uncertainty increases as well as external parties is likely to lead to information asymmetry and performance investors. Earnings management not only hides the actual performance, but the actual process of profit and revenue growth that is useful in predicting future growth of the company also makes secret (Roychowdhury, 2006).

Earnings management is possible in two ways: earnings management billing based on actual profit figures. In the first case management through discretionary accruals accounting figures in accordance with the objectives of their favorite makeup look in the second case, management has made some operational decisions, in other words the real thing to the actual management activity earns profit on their desired gains. The overall management of the profit follows: A) real activities manipulation. B) Manipulation of discretionary accruals.

The definition of the actual management of interest: Schipper (1989) in their study stated that earnings management can include the actual activities. This type of earnings management through changes in operational activities aimed at misleading the stakeholders. Manipulation of real activity and in some cases the accrual of cash flows affect. The definition of accrual-based earnings management: Because of the flexibility of generally accepted accounting principles, management uses various methods

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adopted, is trying to say in accruals. Regarding the quality of information management can increase profits by reports confidential information (Holthausen, 1990).

Performance may be using several indicators such as changes in the level of sales, production, cash flow, and return on equity ratio and return on assets ratio measured. Skinner and Sloan(2002) concluded that the difference between actual earnings and predefined index (earnings forecast), with an increase in the company's performance increases.

They concluded that the performance of the effective earnings management. Matsumoto (2002) Performance is measured based on the change in the production and concluded that the productivity gains associated with management. Frankel et al. (2002) and return on assets were considered as an indicator to measure the performance of companies and concluded that the ratio of the effective earnings management. Bitz et al. (2001), the change in the company's profitability measured using the change in cash flow and earnings management in banks has announced the possibility of positive change in the cash flows, most of the other banks McNichols &Stubben (2008) and Barton & Simko (2002) index measures the performance of ROE and sales began and came to the conclusion that both the above criteria related to earnings management. Dechow & Dychv(2002) believe that the sale of the effective earnings management. Dfand & Jyambalv(1994) and DeAngelo et al. (1994) research showed changes in performance associated with earnings management.

Dechow et al. (1995) argue for the management model can have better predictive power, should consider the index change in performance. According to the views expressed above, this study examines the impact of accrual-based earnings management performance of the company on the pharmaceutical companies listed on the Stock Exchange in Tehran. Specifically, this research seeks to answer the question: What impact the company's performance accruals are based on earnings management?

## 2. Research method

A) Hypothesis: According to the results of previous research and theoretical basis of views expressed in the research problem that affects accrual-based earnings performance management, enterprise performance management is expected that the relationship between earnings based on the accrual no present is. The first research hypothesis is as follows: Hypothesis: performance based on earnings management is significant and negative impact accruals.

B) Statistical population, sampling method and sample size the study population consisted of all pharmaceutical companies listed in Tehran Stock Exchange since the beginning of 2004 until the end of 2014. During this period they also retained his membership on the stock exchange. Because of the heterogeneity of some members of society, from sampling, systematic sampling is removed. To this end, the following restrictions will

be considered for the selection of the sample:

- (1) From the beginning of 2004 have been accepted in Tehran Stock Exchange.
  - (2) Their data is available.
  - (3) According to the conditions set, at the end of 24 pharmaceutical companies in a period of 11 years, including 312 company-years were selected as sample for this study.
- C) Hypotheses: To test the first hypothesis (impact on earnings management performance-based accruals) of the following models:

$$AM_t = \alpha + \beta_1 ROA + \delta \sum Controlst + \epsilon_t$$

Where in:

AMDt: accrual-based earnings management

Regression coefficient:  $\beta$  and  $\alpha$ ,  $\delta$

ROA: performance and

Controls: variables are controlled.

Control variables include:

Size, growth, leverage and market value of assets over book value of their equity. Size has an earnings-based management decisions accruals accruals-based measure of earnings management discretionary accruals are used. To estimate discretionary accruals from the regression model used in both of the remaining regression equation ( $\epsilon$ ) represents the accrual is optional:

$$TA_{it}/A_{it-1} = \alpha_1(1/A_{it-1}) + \alpha_2(\Delta REW_{it}/A_{it-1}) + \alpha_3(PPE_{it}/A_{it-1}) + \epsilon_{it}$$

Jones model (Jones, 1995):

TA<sub>crt</sub> /Assets t-1: the difference between operating profit and cash flows from operating activities in the current period.

Assetst-1: Total assets at the beginning of the financial period

$\Delta REW_e$ : changes in sales.

PPE: Property, machinery and equipment.

ROA: Net income divided by total assets.

## 3. Measuring performance

Performance may be using several indicators such as changes in the level of sales, production, cash flow, and return on equity ratio and return on assets ratio measured. In this study, we used to measure performance ratios Return on assets (ROA) is used. This criterion indicates that the performance is weaker (ROA is less), more managers to manage in the current period income.

## 4. Findings

In this study, to test multiple regression models to test hypotheses based on the approach used for data integration. Standard linear regression models also include the assumption of no autocorrelation, normality of the variables, the reliability of variables in the combined data, lack of co-linearity and parallelism variance of independent variables was tested at 95 percent.

To collect the data needed to test the hypothesis of mining method is used documents. The data from the financial statements of listed companies in Tehran Stock Exchange Were collected. In this study, after extracting the required information from the sources listed and preparation of variables was performed using Excel software. Perform the necessary calculations in order to achieve the needed data for research, for the calculation of regression models using data gathered from STATA software package was used.

## 5. Descriptive statistics

Central tendency and dispersion are given in Table 1. The difference between minimum and maximum data indicates scope for the use of variables. The appropriate amount represents the standard deviation data integrity of the sample is appropriate. The mean and median are few variables reflect their enjoyment of a normal distribution.

<Table 1> Descriptive statistics data

Variable	symbol	Number	Average	Maximum	Minimum	SD
Performance	ROA	312	0.180	1.5331	0.2530	1.5
Accrual-based earnings management	AM	312	-0.115	-0.1558	-0.4347	0.47
Growth	SGT	312	0.151	1.9069	-0.9735	0.3
Financial Leverage	LEV	312	0.650	1.0142	0.4139	0.1
The market value of equity to book value	MTB	312	0.121	20.44	20.44	0.1
Company size	Size	312	12.77	15.092	9.985	1.1

Due to the use of combined data analysis model to evaluate the data from this study in the first stage of this research will be discussed. The question that comes to an estimate using panel data is a must from which the panel or classic method used. F-Limer first test to determine the data we used classical or panel. If you choose the second stage of the selection panel data either way the decision should be fixed or random, usually Hausman test is used for that purpose. For each hypothesis and research model of this type of data in table 2 below: Table 2:

<Table 2> Type of Data

Hypothesis	F- test	Hausman test
Hypothesis	Panel method	Fixed effects

In the regression analysis is more to performance regression assumptions are examined. In the table below you can see the

results of the test the first hypothesis: Table 3:

$$AM_{it} = \alpha + \beta_1 ROA + \delta \sum \text{Controlst} + \varepsilon_t$$

<Table 3> Results of the test the First Hypothesis

Variable	Variable factor	T- statistic	P-value
Source width	-04755	-13.02	0.000
Performance	-0.06617	-3.68	0.000
Operation cycle	-0.0272	-3.20	0.002
Financial Leverage	0.2887	1.66	0.097
Growth	0.0370	6.56	0.000
size of the company	0.0274	11.54	0.000
Probability of F statistics	0.0220		
F- statistic	0.03111		
Adjusted coefficient of determination R2	0.3334		

As in Table 3 can be seen, a significant level of performance variables (0.000) coefficient(-0.06617) is. As a result, the first hypothesis is not rejected at the 5% level. This means that the variable has a significant correlation with performance-based variable earnings accruals are managed. It means that the performance of a company is less likely to accrual-based earnings management in the enterprise increases.

## 6. Discussion and conclusion

Healy & Wahlen(1999) argue that earnings management is when managers judge your taste in financial reporting with the aim of misleading financial information to their users. In this case, management accounting system and reporting procedures that reflect the true economic profit of the company not (Healy & Wahlen, 1999). The aim of this study was to evaluate the effect of accrual-based earnings management performance management, real profits and the overall level of profit management. Based on this hypothesis was raised that if the performance decreases, accrual-based earnings management, the actual level of earnings management and reduce the overall level of earnings management. The performance test was negative assumptions variable factor and this shows that the independent variables with the dependent variable (accrual-based earnings management, the actual management of profit and the general level of earnings management) and a significant negative relationship. In other words, the results showed that the company's perform-

ance-based accruals earnings management, the actual management of profit and the general level of earnings management and significant inverse relationship. This means that the company reduced the earnings management increases. The results of the research results McNichols(2000) and Skinner & Sloan(2002) is consistent.

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