THE FACTORS INFLUENCING INCOME SMOOTHING ACTION OF PHARMACEUTICAL COMPANIES LISTED IN IDX

Asih Nurliyasari¹
Saifudin²

Accounting Study Program, Economics Faculty, Semarang University

ABSTRACT

This research aims at analyzing the factors influencing income smoothing action in those companies registered in IDX, particularly those running in pharmaceutical sector industry. The variables used in this research are share price, ownership structure, company size, profitability and leverage.

This research uses quantitative approach with logistic regression analysis model. This research uses 2009-2013 period. The number of companies observed in this research is 9 companies. The results of this research show that the share price and profitability variables have no influence on income smoothing action, yet the ownership structure, company size, and leverage variables influence income smoothing action.

Keywords: Income Smoothing Action, Share Price, Ownership Structure, Company Size, Profitability and Leverage

INTRODUCTION

Financial statement is one of means to show the management performance required by investors in both assessing and predicting the company’s capacity in producing cash flow from the existing resources (IAI, 2009). Even though all contents of financial statements are useful for their users, more attention is paid to profit information (Dina and Dul, 2012). Barneo et al. (1975) in Cecilia (2012) suggest that income smoothing is performed by managers to reduce the fluctuation of profit reported and increase the investor’s ability to forecast the cash flow in the future. Investor’s attention is frequently focused on profit information provided by companies, rather than the procedure used by the companies to generate this profit information, and thus this might allow the management to manipulate the profit by smoothing the income.

Many companies believe that their share price will increase when the profit they earn increases constantly each year. As a result, these companies will choose the accounting procedure which earns certain procedure to meet their desired target. Owners also try to encourage the management to maximize their ability in achieving the predetermined targets, in the effort of making the entity looks good and established financially. This is the practice known as earnings management (Lusi Christina, 2012).

One of earnings management mechanisms is income smoothing. Income smoothing is done to prevent the profit earned by a company from being too fluctuating. The attempt to reduce

¹ asihnurliyasari@yahoo.co.id
² Corresponding Email: saifudin@usm.ac.id
the profit fluctuation is made to make the profit earned during a period not too different from the one earned during the previous period. Therefore, income smoothing is done using certain techniques to heighten or lower the profit amount. However, in reducing this profit fluctuation level, it is important to take the normal growth rate into consideration (Lusi Christiana, 2012).

Income smoothing is performed by the management to improve the company’s image to external parties, that is when the company has low risks, when the profit variability is believed to be an important factor to assess the risks. Additionally, income smoothing is made by the management to provide relevant information in making a predication of future profit. Income smoothing is done to increase business relations, improve external party’s perception and increase the management compensation. The importance of this profit information is realized by the management, hence they tend to do dysfunctional behavior, i.e. practicing income smoothing to deal with many conflicts arising between the management and other parties who have businesses with the company (Andry Algery, 2013).

Several researchers have studied some factors influencing income smoothing action and find different results, resulting in possible research gap. Ilmanir (Sri and Merry, 2007) proves that income smoothing is driven by the decrease in share price, difference between actual profit and normal profit, and the influence of accounting policy change on profit. Mona Yulia (2013) also finds that share price influences income smoothing action. Meanwhile, Andry Algery’s (2013) study shows inconsistency with Mona Yulia’s (2013), where Andry Algery’s (2013) research proves that share price does not influence income smoothing action.

Company ownership, according to Nuraini and Zain (Linda and Sri, 2012), shows the evidence of influence on income smoothing action in those companies registered in Indonesia Stock Exchange. When the ownership structure is dominated by institutional ownership, the principal will then perform further monitoring to the income smoothing practice. Prabayanti and Yasa’s (2010) research shows inconsistency with the study which shows that ownership structure influences income smoothing in Nuraini and Zain (Linda and Sri, 2012). In addition, other researchers, Antika, et al. (2012) also prove that ownership structure is not a factor which influences income smoothing action.

Cecilia (2012) states that company size has no influence on income smoothing action; the bigger the company size the more likely for the company to perform income smoothing since large company’s profit has higher fluctuation rate than smaller company’s profit. This research is consistent with the research conducted by Lusi Christiana (2012), yet it differs from the one conducted by Dina and Dul (2012) which states that company size has some influence on income smoothing action.

The research conducted by Cecilia (2012) suggests that profitability influences income smoothing action. The result of this research is consistent with Prabayanti and Yasa’s (2010) research where it finds that profitability influences the company management to do or not do the income smoothing practice. On the other hand, Lusi Christiana’s (2012) research obtains a result inconsistent with the studies above, where it is found that profitability has no influence on income smoothing action.
The research on the influence of leverage on income smoothing action conducted by Widaryanti (2009) finds that leverage has no influence on income smoothing action. This research by Widaryanti (2009) is consistent with Cecilia’s (2012), where her research finds that leverage has no influence on income smoothing. However, Andry Algery’s (2013) research is inconsistent with that of Widaryanti (2009) and it finds that leverage influences income smoothing action.

The high market development of pharmaceutical companies in Indonesia can be seen from the number of companies registered in IDX from one period to the other which does not show any significant increase. Pharmaceutical companies do not dominate those companies registered in IDX; their number can even be said to be relatively low (www.idx.com). Meanwhile, the development of business in the field of public health need fulfillment is increasing. Several local pharmaceutical companies, such as Kimia Farma, Indo Farma, Kalbe Farma plan on expanding their companies in the effort of fulfilling their skyrocketing market demands. They do so, among other things, by acquiring companies, issuing notes, allocating capital expenditure and so forth. As the company size develops, the company’s need for capital will eventually increase. Another way taken by companies to fulfill this need is by doing IPO. To launch the IPO, the companies should first provide information to the public regarding their financial statements in order to attract investors’ interest. The companies should improve its financial performance first by taking the policy of earnings management. Earnings management is a company’s policy where the company’s value is increased through financial statements manipulation by the management.

Such phenomenon of earnings management practice has once occurred in Indonesia capital market, with one of those involved in it being PT Kimia Farma. PT Kimia Farma launched an IPO in 2001 and it was found that it made relatively substantial fault according to the examination conducted by Bapepam. Bapepam saw an indication of overstated earnings in PT Kimia Farma’s financial statements per semester I year 2002. Upon an audit, the net profit presented in the financial statements at Rp 132.3 billion was found to be Rp 32.3 billion higher than the actual net profit. It was indeed a fraud, since based on the press release issued by Bapepam, PT Kimia Farma had done earnings management by being non-compliant with several applicable accounting conditions for the management directors made 2 (two) different list of masterprices. This action had been found to violate the Regulations of Bapepam No.VIII.G.7 on Guidelines of Financial Statements Presentation point 2 – Specifically letter m – Accounting Change and Substantial Fault point 3 (Andre Nata Indra, 2012)

This research is built on several previous studies and uses five variables which influence the income smoothing management. These variables include share price, ownership structure, company size, profitability and leverage.

The problem formulation in this research is whether or not share price, ownership structure, company size, profitability and leverage have influence on income smoothing action. This research aims at testing empirically the influence of share price, ownership structure, company size, profitability and leverage on income smoothing action.
REVIEW OF LITERATURE

Share Price
Merry and Sri (2007) suggest that for investors accounting information is the basic data in performing share analysis and in predicting the earning prospect in the future. Theoretically, it makes sense since from the company micro factor perspective, what can cause the share price to fluctuate is the company income, the distributed dividend, the company’s cash flow and the change in investment behavior (Merry and Sri, 2007). When the reported company income or, in this case, the company’s earnings is greater than the expected earnings, the share price tends to increase, and vice versa. A company with increased or decreased share price will increase its probability to do the income smoothing practice (Andry Algery, 2013). Based on the description above, the alternative hypothesis to be tested is as follows:

H1: Share price is expected to influence income smoothing action.

Ownership Structure
Nuraini and Zain (Linda and Sri, 2012) find that institutional investors with its shareholding in large number can function to reduce the managerial incentive to manage the profit aggressively. It has been proven that an active institutional investor holding a large number of shares could reduce earnings management, when they give some pressure and do some monitoring to the company’s management. The statement above is supported by the result of Nuraini and Zain’s (2007) research in Linda and Sri (2012) which suggests that institutional ownership has significant influence on income smoothing. Based on the description above, a hypothesis can be made as follows:

H2: Ownership structure is expected to influence income smoothing action.

Company Size
Larger companies receive more attentions from the society, hence they will be more careful in making their financial statements, resulting in the more accurate report made by these companies. This is suggested by Abiprayu (Dina and Dul, 2012). Another finding is made by Albretch and Richardson (Cecilia, 2012), who found that larger companies have greater possibility of making income smoothing as compared to smaller companies since these companies are examined and evaluated more critically by investors. Thus, larger companies are also expected to avoid too dramatic profit fluctuation, because drastic profit increase will result in greater taxes. Based on the description above, the alternative hypothesis to be tested is as follows:

H3: Company size is expected to influence income smoothing action.

Profitability
According to Scott (Dina and Dul, 2012), companies tend to make income minimization when they obtain high profitability level. Companies with low return on asset have greater tendency to smooth their income. It can then be expected that profit fluctuation which poses an impact of lowering or decreasing profitability will drive managers to smooth their income. Based on the description above, an alternative hypothesis can be made as follows:

H4: Profitability is expected to influence income smoothing action.
Leverage
According to Weston and Copeland (Widana and Yasa, 2013) leverage refers to the use of debts to provide funding for companies. Dina and Dul (2012) argue that leverage is a company’s ability with its own capital to secure the debts it possesses and it shows a proportion of the company’s expenditure funded by their shareholders (personal capital) and funded from loans. Companies with high leverage have the risk of suffering substantial loss since the higher the leverage ratio the greater the proportion of company funding financed from debts, hence they have the tendency to violate their debt agreement when they are in default (fail to repay their liabilities when they are due) due to their financial problem (Santoso in Dina and Dul, 2012). Based on the description above a hypothesis can be made as follows: H5: Leverage is expected to influence income smoothing action

RESEARCH METHOD
In this research, the dependent variable used is Income Smoothing Action and the independent variables are Share Price, Ownership Structure, Profitability, Company Size and Leverage. The research objects in this research are pharmaceutical companies registered in Indonesia Stock Exchange (IDX) for 2009-2013 period. The population in this research are all pharmaceutical companies listed in Indonesia Stock Exchange. The number of companies as its sample is 9 during 2009-2013. The data used in this research are secondary ones. The source of data in this research is the financial statements of pharmaceutical companies coming from Indonesia Stock Exchange (IDX) and Indonesian Capital Market Directory (ICMD) for 2009-2013 period. The data used in this research are collected using documentation method. The testing to the hypotheses is done using logistic regression method. This logistic regression method is used to figure out the influence of the three independent variables on the dependent variable.

RESULTS OF RESEARCH AND DISCUSSION
Description of Research Sample
Based on the criteria for sample selection using purposive sampling, 9 companies are obtained to be the sample based on the data on companies registered in IDX with their details in the table below:

<table>
<thead>
<tr>
<th>Sample Selection Criteria</th>
<th>Number of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies registered in IDX for 2009-2013 period</td>
<td>454</td>
</tr>
<tr>
<td>Companies classified into pharmaceutical companies</td>
<td>11</td>
</tr>
<tr>
<td>Pharmaceutical companies consistently listed in IDX for 2009-2013 period</td>
<td>9</td>
</tr>
<tr>
<td>Total analysis units for 5 years</td>
<td>45</td>
</tr>
</tbody>
</table>

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>income_Smoothing</td>
<td>45</td>
<td>.00</td>
<td>1.00</td>
<td>.0222</td>
<td>.14907</td>
</tr>
<tr>
<td>Share_price</td>
<td>45</td>
<td>80.00</td>
<td>189000.00</td>
<td>19797.6000</td>
<td>42761.89441</td>
</tr>
<tr>
<td>Owner_structure</td>
<td>45</td>
<td>56.70</td>
<td>99.00</td>
<td>84.2922</td>
<td>12.61380</td>
</tr>
</tbody>
</table>
The results of analysis using descriptive statistics show that the number of sample (N) is 45 and indicate that Income Smoothing has mean amounting to 0.0222 and standard deviation amounting to 0.14907. This standard deviation shows not too many variances, where the Income Smoothing is 0.00 at minimum and 1.00 at maximum. In table 4.3, it can be seen that the share price variable shows minimum value of 80.00 and maximum value of 189000.00 with a mean value of 19797.6000. The standard deviation of share price is 42761.89441. This standard deviation shows many variances.

Ownership structure shows a minimum value of 56.70 and a maximum value of 99.00 with the mean value in Ownership Structure variable amounting to 84.2922. The standard deviation of the Ownership Structure variable is 12.61380. This shows many variances. The Company Size variable shows a minimum value of 25.33 and maximum value of 30.06 and mean value amounting to 27.5511 and standard deviation of 1.29024. This does not show many variances.

In the Profitability variable, the minimum value is -0.08 and the maximum value is 0.45, with the mean value amounting to 0.1227 and standard deviation 0.12628. This standard deviation does not show many variance. The Leverage variable shows a minimum value of 0.18, a maximum value of 73.60, mean value amounting to 3.5078 and standard deviation 11.75535. This shows many variances.

**Results of Research Hypothesis Testing**

Since the dependent variable, namely Income Smoothing variable, is divided into two, i.e. the companies which perform income smoothing and the one which does not perform income smoothing, the testing of this variable then uses nominal scale. The measurement is done by assigning score 1 for those companies which perform income smoothing and 0 for those companies which do not perform income smoothing since the dependent variable is a dummy variable (Cecilia, 2012).

The SPSS output display indicates that the amount of strategic value of Hosmer and Lemeshow Goodness of Fit Test is 8.044 with significant probability at 0.285 which is above 0.05. Thus, it can be said that the model is fit and the model is acceptable.
This table shows comparison between initial -2LL (Block Number = 0) with -2 log likelihood (-2LL) value of 9.591. And in the end (Block Number =1) a decrease to 1.274 occurs. This likelihood decrease shows a better regression model or, in other words, the hypothesized model fits the data. This indicates that the model is good or, in other words, the hypothesized model fits the data.

<table>
<thead>
<tr>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Square</th>
<th>Nagelkerke R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.274</td>
<td>.183</td>
<td>.305</td>
</tr>
</tbody>
</table>

From the SPSS output,it is found that the Cox Snell’s R Square value is 0.183 and the Negelkerke R2 value is 0.305, meaning that the variability of the dependent variable explained by the independent variable is 30.5% and the remaining 69.5% is explained by variables other than the research model.

The table shows a prediction of regression model to predict the possibility for these companies to perform income smoothing; and the result is 100%. It means that using the regression model currently in use, 1 company (100%) is predicted to perform income smoothing out of a total of 1 company. It is predicted that the companies which do not perform income smoothing is 100%, meaning that using the regression model currently in use, 44 companies (100%) are predicted to not perform income smoothing out of a total of 44 companies.
Based on the table above, it is found that the logistic regression equation is as follows:

\[
\text{Income Smoothing} = 1.112 - 4.962 \text{Share price} + 1.169 \text{Ownership structure} - 0.794 \text{Company size} - 0.473 \text{Profit} + 0.641 \text{Leverage} + e
\]

Based on the results of testing using the logistic regression, it can be concluded that the constant is 1.112, meaning that without the influence of Share Price, Ownership Structure, Company Size, Profit, and Leverage, then the smoothing practice tends to increase. The Share Price variable shows a regression coefficient of -4.962. This means that when the Share Price increases, the income smoothing practice will decrease at 4.962 point, assuming that Ownership Structure, Company Size, Profit, and Leverage variables are constant.

The results of wald test show a significant level of Share Price at 0.272, greater than the probability level of 0.05, thus Share Price has no influence on income smoothing practice. It can be concluded that the initial hypothesis (H1) is rejected.

The Ownership Structure variable shows a regression coefficient of 1.169. It means for every increase in Ownership Structure, the income smoothing practice will increase at 1.169 point, assuming that Share Price, Company Size, Profit, and Leverage variables are constant. From the wald test perspective, the probability level of Ownership Structure at 0.049 is less than the probability level of 0.05, hence the Ownership Structure influences the income smoothing practice. It can be concluded that the initial hypothesis (H2) is confirmed.

The Company Size variable shows a regression coefficient at -0.794. It means that when Company Size increases, the income smoothing practice will decrease at 0.794 point, assuming that Share Price, Ownership Structure, Profit, and Leverage variables are constant. From the perspective of significance level of Company Size at 0.006, it is less than the probability level of 0.05, thus Company Size influences income smoothing practice. It can then be concluded that the initial hypothesis (H3) is confirmed.

The Profitability variable shows a regression coefficient of -0.473. It means that when the Profitability increases, the income smoothing practice will decrease at 0.473 point, assuming that the Share Price, Ownership Structure, Company Size, and Leverage variables are constant. The Profitability significance level is 0.097, which is greater than the probability level of 0.05, thus Profitability has no influence on income smoothing practice. It can then be concluded that the initial hypothesis (H4) is rejected.

The Leverage variable shows a regression coefficient of 0.641. It means that when the Leverage increases, the income smoothing practice will increase at 0.641 point, assuming that the Share Price, Ownership Structure, Company Size, and Profitability variables are constant. The Leverage significance level of 0.030 is less than the probability level of 0.05, therefore Leverage influences income smoothing practice. It can then be concluded that the initial hypothesis (H5) is confirmed.
DISCUSSION
The result of test shows that Share Price does not influence income smoothing. In table 4.7, the wald test produces a value of 0.689 and a significance level greater than 0.05, i.e. 0.272. The fact that share price has no influence in this research means that even if the company’s share price is high it does not guarantee that the company would not do any income smoothing. This is because Share Price tends to increase when the reported profit is greater and hence it will drive the company to try to show good or high profit in order to do income smoothing practice (Andry Algery, 2013). The result of this research is consistent with the research conducted by Andry Algery (2013) which finds that share price has no influence on income smoothing.

Influence of Ownership Structure on Income Smoothing
The result of test shows that Ownership Structure influences income smoothing. In table 4.7, the wald test produces a value of 4.506 and a significance level less than 0.05, i.e. 0.049. The influence that the Ownership Structure has is because it is believed to have the ability to influence how the company would run and eventually it will influence the company’s performance. Agency problem can be reduced by the existence of ownership structure. Ownership Structure is a mechanism to reduce the conflict between the management and the shareholders (Pujiningsih, 2011). Institutional investor with great amount of ownership can function to reduce managerial incentive to manage the earnings aggressively. This is as indicated from the fact that an active institutional investor holding shares in large number can reduce earnings management when they give some pressure to and monitor the company’s management. Based on the standard deviation in this research, Ownership Structure has relatively high value. This indicates that high ownership structure has highly significant influence on the decision made on income smoothing practice.
The result of this research is consistent with the research conducted by Linda and Sri (2012) which finds that ownership structure influences income smoothing.

Influence of Company Size on Income Smoothing Practice
From the research result, Company Size is found to have significant influence on income smoothing. This is shown in table 4.7 in wald test where Company Size has a value of 0.022 with a significance value less than 0.05, i.e. 0.006. Based on the mean value and and standard deviation, the Company Size variable has a value of 1.29024. In this research, Company Size can influence income smoothing practice even if its influence is not as great as other variables in this research. This indicates that larger companies have a drive to perform income smoothing than smaller companies since they are examined and evaluated more critically by investors.
Large companies receive more attentions from the public, hence they will be more careful in making their financial statements, resulting in the more accurate report made by these companies (Abiprayu, 2011 in Dina and Dul, 2012). Larger companies are also expected to avoid too dramatic profit fluctuation, because drastic profit increase will result in greater
taxes. On the contrary, drastic profit decrease will give less favorable image. Therefore, large companies are expected to have greater tendency to do income smoothing action (Cecilia, 2012).

The result of this research is consistent with the research conducted by Cecilia (2012), Buar and Sudarsi (2012), and Dina and Dul (2012) which finds that Company Size influences income smoothing. However, it is inconsistent with the research conducted by Widana and Yasa (2013) which finds that Company Size has no influence on income smoothing.

**Influence of Profitability on Income Smoothing**

Based on the result of test on profitability variable, it is found that profitability has no influence on income smoothing. In table 4.7, its wald test produces a value of 0.685 and significance level greater than 0.05, i.e. 0.097. When the profitability variable is proxied with ROA, it is found that income smoothing action is more likely done by companies with low profitability level. This is possible because income smoothing is a common phenomenon aiming at reducing variability of profit (Jin and Machfoedz, 1998 in Lucky Susilowati, 2010). Investors tend to ignore profitability information available, thus the management is not motivated to do income smoothing through this variable. Given that the calculation of profitability involves total assets, then it also serves as a proof that total assets variable has no influence on income smoothing.

This research is consistent with the research conducted by Andry Algery (2013) which finds that profitability has no influence on income smoothing. However, this research is inconsistent with the research conducted by Cecilia (2012), Linda and Sri (2012), and Widana and Yasa (2013) which finds that profitability influences income smoothing.

**Influence of Leverage on Income Smoothing**

Based on the test on Leverage variable, it is found that leverage influences income smoothing. In table 4.7, the wald test produces a value of 0.177 and a significance level less than 0.05, i.e. 0.030. Based on its standard deviation value, leverage has relatively high value. This indicates that the fact that Leverage has some influence on income smoothing is due to the high debts that these pharmaceutical companies in this research have. This is because the higher the company’s leverage the higher the risks involved will be. Furthermore, companies with high leverage value will have extremely high charges which eventually might result in bankruptcy and investors give more emphasis on this variable. Therefore, companies will be more careful in making decisions on income smoothing.

This research is consistent with the research conducted by Andry Algery (2013) which says that leverage influences income smoothing. However, it is inconsistent with the research conducted by Cecilia (2012), Linda and Sri (2012), and Widana and Yasa (2013) which finds that leverage has no influence on income smoothing.

**CONCLUSION**

The conclusion of this research is that the share price & profitability variables have no influence on income smoothing and ownership structure, company size and leverage
influence income smoothing. Based on the results of research, the researchers can give the following suggestions. Companies are expected to increase the assets they own. This is because high assets serve as an indicator of a company size from the investor’s perspective to invest in this company’s shares and it reduces the decision on income smoothing. There are 5 independent variables used in this research. Based on this research result, the five variables give a negelkerke R Square value of 0.305 or 30.5 percent, thus there is still 69.5 percents of income smoothing influenced by other factors or variables. Therefore, other variables or factors such as Inflation, liquidity and dividend payout ratio can be used as an agenda of the next research.

REFERENCES


