The Effect of the Magnitude of Operating Cash Flow and Accrual Earnings on the Level of Earnings Persistence

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Abstract. This research aims to disclose the magnitude of operating cash flow and accrual earnings in affecting the level of earnings persistence. The sample of this research was manufacturing firms listed in Indonesia Stock Exchanges. The nexus between variables was tested using random effect model. This research demonstrated that the magnitude value of manufacturing firms is positive on average in the accrual earnings, operating cash flow, and earnings persistence. The result of testing the effect points out that accrual earnings and operating cash flow affect the earnings persistence positively. The level of the earnings persistence has been followed by the magnitude of accrual earnings and operating cash flow indicating that the higher the accrual earnings and operating cash flow, the more persistent the earnings gained by manufacturing firms.


Keywords:
Accrual Earnings;
Earnings Persistence;
Operating Cash Flow

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**Introduction**

Profit is an increase in economic benefits during an accounting period in the form of income or addition of assets or a decrease in liabilities resulting in the loss of equity (Abbas & Syahadat, 2019). Earnings is an indicator of the efficiency of the use of corporate funds, the basis for assessing the company's performance, the basis of future earnings forecasting and the basis of tax calculation and dividend distribution. Signal theory underlies investment decision information generated by companies addressed to investors. Abbas et al. (2015) stated that the company sends a signal with the aim of showing that it is capable of performing better than other companies.

Performance in net income is one of the information that should be known by investors. The goal is decision making. This encourages investors to be able to distinguish which companies have good value and provide investment profits. High and stable dividend distribution is a reward that investors are very much looking forward to.

Every firm chases profit to achieve its performance. Maintained and persistent earnings indicate the company’s going concern. Income is excess revenue after deducting expenses for one period (Harahap, 2008; Ghozali & Chairiri, 2007). Income growth depends on revenues being reduced by expenses. The amount of revenue by reducing costs indicates a better profit.

Most of prior studies highlight earnings persistence linked to corporate social responsibility (Khuong, et al., 2022) (Nurdin & Hamzah, 2016) (Jia & Li, 2022). Related to other relevant studies, Persada & Martani (2010) found the effect of accrual income and cash flow on the persistence of earnings. Previously, Penman (2001) also stated the same result that the persistence of earnings is determined by the components of cash flow and accrual income contained in current income. The cash flow in question is the total cash flow from operating activities.

Furthermore, Bellovary et al. (2005) states that the quality of earnings is related to the ability of income in financial statements to explain the true state of the company's profit and predict future earnings. Income is one part of financial statements that get a lot of attention and is often used as a consideration in decision making by users of financial statements. If the income presented is not reliable then the decisions of users based on information in financial statements will also not be appropriate.

The persistence of earnings defined by Penman (2001) is an accounting profit that persistently reflects future earnings. Jonas & Blancet (2000) consider that persistent earnings are also a consideration of profit earnings quality due to the predictive value component of qualitative characteristics of relevance, while Aguguom et al. (2019) attribute the persistence of earnings and performance of the company, but the results do not find any significance in both. Dichev et al. (2013) stated that poorly reported profit quality certainly affects the share price and capital costs.

Earnings is management’s performance goal to attract potential investors (Abbas, 2017). Wijayanti (2006) stated that signal theory is able to show the tendency of asymmetry information from outside and internal companies. Because it gets attention from external parties, it is expected that the reported earnings is a quality profit that is accounting profit that has little or no perceived noise and reflects the performance of the real company, if the greater the perception disorder contained in the *accounting* profit, the lower the quality of accounting profit.

This study aims to determine the magnitude of accrual earnings, cash flow in operations and persistence of the company’s income. The magnitude of accrual profit and operating cash flow was further tested to find its effect on the level of earnings persistence. This research contributes to assess the performance in the company's income and add studies in accounting science, especially in the area of finance.
Research Method

Secondary data used in this study was data in the form of audited annual financial statements at manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018. In this study, manufacturing was sampled because the same business characteristics and profit impact can be more observed. Sampling in this research was conducted using purposive sampling that has certain criteria that the company with the audited annual financial statements and ends on December 31, the company reporting current and deferred tax expenses in profit/loss statements in the observation year, the company paying taxes in cash in the cash flow statements in the observation year, no losses suffered by the company in the observation year and the company with its annual financial statements in Rupiah.

Population was a manufacturing company listed on the Indonesia Stock Exchange (IDX) for five years of observation, namely from 2014 to 2018. The sample data based on the criteria to be used as a research sample were 19 manufacturing firm with the number of observations five years, so this research has 95 observations. This research deliberately only limited the period up to 2018 because the the following periods started entering the pandemic condition leading the unstable economy. In other words, over the period given from 2014 to 2018, the firms showed the financial stability.

The variables used in this study consisted of independent and dependent variables. The Independent variables in this study were accrual earnings and operating cash flow. The dependent variable used was the persistence of earnings. Sekaran (2003) stated that independent variables are variables that will be affected so that these variables become the main focus of research.

Earnings persistence was interpreted as earnings durability that is able to show progress in value each period. Persistent earnings reflect continued progress in income performance that is at a positive value. Jackson (2015) measured the persistence of earnings from changes in net income for the current year \((N_{it})\) deductible prior net income \((N_{it-1})\) and divided by average assets.

\[
\Delta NI = \frac{N_{it} - N_{it-1}}{Average\ Assets}
\]

In addition to the variable, accrued earnings was derived from profit before tax deductible operating cash flow and operating cash flow was obtained using cash flow derived from the company’s operating activities indicating whether its operations are capable of generating cash flow used to pay off its liabilities, maintain the company’s operating activities, pay dividends, and make new investments without relying on outside sources of financing. Thus, the cash flow in this research is related to the company’s operational activities. The amount of operating cash flow can be seen in the cash flow statements contained in the company’s financial statements scaled by average assets (Jackson, 2015).

\[
OCF = \frac{Operating\ Cash\ Flow}{Average\ Assets}
\]

Prior to testing, research variables were described into descriptive statistics that showed average, minimum, and maximum (Ghozali, 2010). Dependent variables are persistence of earnings and independent variables are arus of operating cash and accrual earnings. To determine favoured fit model in the research, Pool Least Squares, Fixed Effect Model, and Random Effect Model were selected under Chow, Hausman, and Lagrange Multiplier Tests. The hypothesis test on this model is described in the following initial regression equations:
\[ \Delta NI = f (ACC, OCF) \]

Where,
\[ \Delta NI = \text{Earnings Persistence} \]
\[ OCF = \text{Operating Cash Flow} \]
\[ ACC = \text{Accrual Earnings} \]

Sloan (1996) and Francis (2004) stated that the persistence of earnings related to accrual policies that encourage accrual quality creates a quality of profit that then becomes an indicator of future earnings. The persistence of earnings is determined by the cash flow component of operations and accrued profit contained in the current earnings (Penman, 2001). Persistence of earnings is one component of the predictive value of income, because it is an element of relevance, then some information from accrual variables and cash flow can affect the persistence of earnings and can help investors in determining the quality of earnings and firm value.

The hypothesis of this study explains that the magnitude of accrual earnings and operating cash flow shows an effect that is in line with the earnings persistence model. The higher the accrued earnings and operating cash flow, the more persistent the earnings generated by the company, on the contrary the lower the accrued earnings and operating cash, the less persistent the earnings generated by the company. However, overall, the effect caused by accrual earnings and operating cash flow is positive to the persistence value of earnings, so the formulation of this research hypothesis is as follows.

H1. The higher the accrual earnings, the more persistent the profit generated by the company.
H2. The higher the cash flow, the more persistent the earnings generated by the company.

**Results and Discussion**

Descriptive statistical results are presented in Table 1. The results are data on minimum (min), maximum (max), mean, and standard deviation values.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings Persistence</td>
<td>95</td>
<td>-.060</td>
<td>.084</td>
<td>.00759</td>
<td>.030654</td>
</tr>
<tr>
<td>Operating Cash Flow</td>
<td>95</td>
<td>-.204</td>
<td>.277</td>
<td>.05971</td>
<td>.087214</td>
</tr>
<tr>
<td>Accrual Earnings</td>
<td>95</td>
<td>-.104</td>
<td>.294</td>
<td>.03593</td>
<td>.076925</td>
</tr>
</tbody>
</table>

Source: Data processed, 2023

The variable of NI was obtained by reducing the net profit of the current period with net income of the previous year divided by average assets. Descriptive statistics showed that the persistence of earnings, the minimum value decreased by a net income of -0.060. At the maximum value, the increase in net income was 0.084. the mean value was 0.007 with a standard deviation of 0.306 from the average. Those indicate that the persistence value of the earnings persistence of the sample of manufacturing companies was a positive value.

Operating cash flow (OCF) variable showed a minimum value of -0.204 and a maximum value of 0.277 with an average of 0.059. The standard deviation of 0.087 indicates the variation contained in the operating cash flow variable. In variable of accrual earnings, the minimum value was -0.294 and the maximum value was 0.294. The average value of the accrual variable was 0.035 with a standard deviation of 0.076 indicating the variation contained in the accrual earnings as independent variable.
The model of regression favours the random effects model. In sample firms, some made positive and negative profits. Therefore, the research test was divided into three models. It is presented in Table 2.

Table 2. Result of Effect Test

\[ \Delta NI = \alpha + \beta_1 ACC_{it} + \beta_2 OCF_{it} + \varepsilon \]

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Coef</th>
<th>t-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.006</td>
<td>-1.405</td>
</tr>
<tr>
<td>ACC</td>
<td>0.157</td>
<td>3.954***</td>
</tr>
<tr>
<td>OCF</td>
<td>0.129</td>
<td>2.853***</td>
</tr>
<tr>
<td>N= 95</td>
<td></td>
<td>R Square = 0.152</td>
</tr>
<tr>
<td>F-Statistic = 8.129*** Adj. R Square =0.133</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Coef</th>
<th>t-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.009</td>
<td>1.892**</td>
</tr>
<tr>
<td>ACC</td>
<td>0.150</td>
<td>4.073***</td>
</tr>
<tr>
<td>OCF</td>
<td>0.136</td>
<td>3.347***</td>
</tr>
<tr>
<td>N= 58</td>
<td></td>
<td>R Square = 0.269 Adj. R Square =0.242</td>
</tr>
<tr>
<td>F-Statistic = 10.119***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Coef</th>
<th>t-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.012</td>
<td>-2.948***</td>
</tr>
<tr>
<td>ACC</td>
<td>-0.117</td>
<td>-2.652***</td>
</tr>
<tr>
<td>OCF</td>
<td>-0.109</td>
<td>-2.238***</td>
</tr>
<tr>
<td>N= 37</td>
<td></td>
<td>R Square = 0.174 Adj. R Square =0.126</td>
</tr>
<tr>
<td>F-Statistic = 3.590***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*10%, **5%, ***1%

Model 1 = Both positive and Negative Earnings Persistence
Model 2 = Positive Earnings Persistence
Model 3 = Negative Earnings Persistence
Source: Data processed, 2023

The coefficient of determination indicated by Adj. R Square of the regression equation in the model was used, resulting in values of 13% at the model 1, 24% at the model 2, and 12% at the model 3. The value can be explained that independent variable variations consisting of operating cash flow and accrual earnings are able to explain the variable persistence of earnings. The rest was explained by other variables outside the model. This means that there are still other factors that affect the variable persistence of profit. In the simultaneous significance test shown by F-statistic, the value generated by regression equation in each research model at the level of 1%. It can be explained that operating cash flow and accrual earnings simultaneously affect the variable persistence of earnings.

Model 1 shown in Table 2, all independent variables showed a positive effect on profit persistence at a level of 1%. Similarly, in model 2, accrual earnings and operating cash flow had a positive effect on earnings persistence. In contrast to model 3, accrual profit and cash flow showed negative effects on earnings persistence. This is because model 3 uses negative earnings persistence so that the effect is negative. Thus, these results point in a direction that is in line with the earnings persistence model. Model 2 with positive earnings persistence was able to be positively influenced
by accrual earnings and operating cash flow, while model 3 with negative the persistence was able to be positively affected by accrual earnings and operating cash flow.

The results of this research as a whole (model 1) received hypotheses (H1 and H2) implying that accrual earnings and operating cash flow have a positive effect on earnings persistence. This finding confirms Penman's statement (2001) that the persistence of earnings is determined by the components of operating cash flow and accrual earnings and is in line with Persada & Martani research (2010) that both variables have significant positive effects on earnings persistence. The effect posed by each variable can be explained under the signal theory that operating cash flow and accrual profit are signals in assessing persistent earnings within the company. Persistent earnings can be assessed that future businesses or going concerns can be created.

**Conclusion and Suggestion**

The persistence of earnings generated by companies in this research is at varying averages. Persistent earnings indicate the durability of the company's income. Every period, the company must be able to create performance progress in its incomes. The research found two persistent corporate earnings effects and showed a direct effect. The amount of accrual earnings and operating cash flow showed a positive effect on positive persistence model, while the effect was negative on the negative persistence model.

The amount of accrued earnings and operating cash flow showed a direct effect on each earnings persistence model. The increase in positive earnings persistence was influenced by the positive amount of cash flow and accrued earnings generated by the company, on the contrary, the decrease in profit persistence was influenced by the amount of negative cash flow and accrual earnings. This research is addressed to provide practical uses. For practical implications, the results of this research are used as one of the considerations of decision making in the financial sector, especially in estimating profit as a conventional performance assessment. This research can also be useful for investors to assess the company's profit performance.

**References**


