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Disaggregate earning as a means to predict future cash flows in businesses

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Abstract

The study aims to investigate disaggregate earning as a means to predict future cash flows in businesses. The method of this research is purposive sampling with linear regression analysis techniques and multiple linear regression analysis using ($\alpha = 5\%$). As a result, earning has a positive and significant effect on the future operating cash flow. In conclusion, total accrual does not affect the future operating cash flow, while disaggregate earning has a significant influence and can improve the predicted results of future operating cash flows.

Keywords: Disaggregate, Earning, Cash Flow, Accrual.

Desagregar las ganancias como un medio para predecir los flujos de efectivo futuros en las empresas

Resumen

El estudio tiene como objetivo investigar las ganancias desagregadas como un medio para predecir los flujos de efectivo futuros en las empresas. El método de esta investigación es el muestreo intencional con técnicas de análisis de regresión lineal y análisis de regresión lineal múltiple utilizando ($\alpha = 5\%$). Como resultado, las ganancias tienen un efecto positivo y significativo en el flujo de caja operativo futuro. En conclusión, la acumulación total no afecta el flujo de efectivo operativo futuro, mientras que la ganancia desagregada tiene una influencia significativa y puede mejorar los resultados pronosticados de los flujos de efectivo operativos futuros.

Palabras clave: Desagregar, Ganancias, Flujo de caja, Devengo.

1. INTRODUCTION

Financial statements are information that describes and evaluates the performance of a company, especially for companies whose shares have been listed and traded on the exchange. Information contained in the company's financial statements could provide financial statement analysis to assess company performance, as information could provide a basis for investment decisions. The numbers listed in the financial statements could describe the company's performance and management's ability to manage the business (HIDAYAT, RIZKI, RISKI, RATNAWATI & TANDIYONO, 2019). This number could also be used as a basis for projecting what will happen in the future. However, with uncertainty going around, investors are required to predict changes in cash flow in the future, in which they may obtain results that are comparable to their investment risks. Cash flow information evaluates changes in a financial structure such as liquidity, solvency and its relationship with profitability (NAGLE & MÜLLER, 2017).

Disaggregate earnings in operating cash flows and accrual components could increase predictions on future operating cash flows. Some future cash flows could be thoroughly explained and analyzed when the accrual component is broken down into several components consisting of ΔAP , ΔINV , ΔAR , DEP , $OTHER$. In predicting the

Operating Cash Flow, Barth uses disaggregate earnings with the variables in the aggregate earnings as reported in financial statements. Most companies show that current earnings are better predictors of operating cash flows in future cash flows. Accrual values could be used to predict future cash flows because they have a relationship with unpaid transactions in income and expenses (DICHEV, GRAHAM, HARVEY & RAJGOPAL, 2016).

The property and real estate business in Indonesia is growing every year. In 2013, as many as 26 property developers experienced net profit growth of 50%. This could be seen from the increasing number of people who can buy a property. Property prices that could be reached by the lower middle class are the largest contributor to property growth in Indonesia by 60%. In the research conducted by SCHALTEGGER & BURRITT (2017), 2640 companies in China show that disaggregate earnings variables have a significant influence on future cash flow. This indicates that profit has a better ability to predict future operating cash flows than the operating cash flow itself. Earning variables, disaggregating earnings, and total accruals have a significant influence on the future operating cash flow as tested and analyzed on 37 companies from 6 types of industrial sectors. Based on the background of the problem above, this study aims to determine the effect of disaggregate earnings in predicting future cash flows in companies in the property and real estate sub-sector (SENTHIL, SARAVANAKUMAR & DEEPA, 2016).

2. RESEARCH METHODS

The population in this study were service companies in the property and real estate sub-sector listed on the Indonesia Stock Exchange in 2011 to 2015. Sample selection is done by using a purposive sampling method with a total sample of 36 companies. The data is in the form of annual financial statements of service companies listed on the IDX and issued for six periods with four measurement periods, namely 2011 to 2015. The dependent variable in this study is future cash flow, while the independent variables in this study are earnings, total accruals, and disaggregate earnings.

The results of the data were then analyzed using multiple linear regression with SPSS version 22. The next step is doing path analysis to determine the relationship between each variable. The analysis in this study was conducted using multiple linear regression analysis methods (LING-YAN, 2015).

3. FINDINGS

Future cash flows (FOCF) have a maximum value of 1.7129 with a minimum value of -0.9502. It could be seen from the study that the negative value indicates that several companies between 2012 and 2015 had negative operating cash flow values. The average value of sample companies' future cash flows (FOCF) is 0.07409 with a standard deviation of 0.16026. Earning (EARN) has a maximum value

of 0.5339 with a minimum value of -0.283. The negative value indicates that several companies in the research period had negative or loss earning values. The average value of earnings (EARN) of the sample companies is 0.06716 with a standard deviation of 0.07933. Total accrual (ACC) is the difference between net income and operating cash flow (JEMÂA, TOUKABRI & JILANI, 2016).

Total accrual (ACC) has a maximum value of 0.6160 with a minimum value of -0.4208. The negative value indicates that several companies in the study period had negative net income and or operating cash flows. The average value of the total accrual (ACC) of the sample company is -0.00848 with a standard deviation of 0.12314. Operating cash flows (OCF) have a maximum value of 0.5253 with a minimum value of -0.5140. The negative value indicates that several companies in the 2011 to 2014 study period had negative operating cash flow values. The average value of the operating cash flows (OCF) of the sample is 0.07565 with a standard deviation of 0.12522.

Table 1: Descriptive Test Result on The Research Variable

Variable	N	Minimum	Maximum	Mean	Standard Deviation
FOCF	144	-0,9502	0,7129	0,07409	0,16026
EARN	144	-0,2283	0,5339	0,06716	0,07933
ACCR	144	-0,4208	0,6160	-0,00848	0,12314
OCF	144	-0,5140	0,5253	0,07565	0,12522
ΔPAY	144	-0,1135	0,1052	0,00278	0,01998
ΔINV	144	-0,3742	0,4260	0,02461	0,07507
ΔREC	144	-0,0613	0,0958	0,00445	0,02168

DEP	144	0,0002	0,4730	0,07270	0,09970
OTHER	144	-0,6304	0,4682	-0,02346	0,09402

Debt change (AYPAY) is the difference between the debt this year and the previous year, with a maximum value of 0.1052 with a minimum value of -0.1335. The negative value indicates that several companies during the research period had smaller debt values than the previous year. The average company debt change value (Δ PAY) of the sample is 0.00278 with a standard deviation of 0.01998. Change in inventory (Δ INV) is the difference between the inventory of this year and the inventory of the previous year. inventory change (Δ INV) has a maximum value of 0.4260 with a minimum value of -0.3742. The negative value indicates that several companies in the study period had a decrease in inventory value compared to the previous year's inventory (ARKAN, 2016).

The average value of inventory change (Δ INV) of the sample company is 0.02461 with a standard deviation of 0.07507.) Changes in accounts receivable (Δ REC) have a maximum value of 0.0958 with a minimum value of -0.0613. The negative value indicates that several companies during the research period had a decrease in inventory value compared to the previous year's inventory. The average value of change in accounts receivable (Δ REC) of the sample company is 0.00445 with a standard deviation of 0.02168 (HASIBUAN & DZULKIROM, 2016).

Depreciation (DEP) has a maximum value of 0.4730 with a minimum value of 0.0002. The average sample depreciation (DEP) value of the company is 0.07270 with a standard deviation of 0.09970. Another accrual value (OTHER) has a maximum value of 0.4682 with a minimum value of -0.6304. The average value of other accruals (OTHER) in the sample companies is 0.02346 with a standard deviation of 0.09402. Based on the results of linear regression analysis, the first model of earning variable toward future operating cash flow has a significance of 0.002. The significance value of earning variable is smaller than the level of a significant (α) value of 0.05. Earning variable has a positive influence on the future operating cash flow (SUDARYATI & MOHAMED, 2017).

Table 2: Results of Linear Regression Analysis of Future Cash Flow

Variable	Model 1		
	Coefficient	T	Sig/2
Constant	0,071	2,452	0,007
EARN	0,165	2,911	0,002
R	0,237		
R ²	0,056		
Adjusted R2	0,050		
F test	8,475		
Sig	0.004		

The constant value of the first model is 0.071 and with a regression coefficient of 0.165. The coefficient of R2 determination for the earning analysis model of future cash flow is 0.056. This shows

that the earnings variable could explain the future cash flow variable of 5.6%. The adjusted R² value for the earnings analysis model for the future cash flow is 0.050. This means that earnings variables affect the future cash flow variables by 5% while the rest is influenced by other variables aside from the independent variables used in the study (EDEM, 2017).

The second model of operating cash flow variable towards future operating cash flow has a significance value of 0,000. The operating cash flow variable has a positive influence on future operating cash flow with a regression coefficient of 0.169, while the total accrual variable has a regression coefficient of 0.172 and a constant value of 0.017. The significance value of the total accrual variable on the future operating cash flow is 0.031 where the value is smaller than the value of the level of significant (α) of 0.05. This shows that the total accrual variable has a positive influence on future cash flow.

Table 3: Total Accrual Multiple Linear Regression Analysis of Future Cash Flow Result

Variable	Model 2		
	Coefficient	T	Sig/2
Constant	0,017	1,762	0,040
OCF	0,169	3,637	0,000
ACCR	0,172	1,872	0,031
R	0,320		
R ²	0,102		

Adjusted R2	0,090
F Test	8,043
Sig	0,000

The value of R2 or the coefficient of determination for the total accrual analysis model of the future cash flow is 0.102. This means that the total accrual variable could affect the future cash flow variable by 10.2%. The adjusted R2 value for the total accrual analysis model of the future cash flow is 0.090. This means that earning variable could affect the future cash flow variable by 9% while the rest is influenced by other variables outside independent variables used in the study. The third model of disaggregate earning variable toward future operating cash flow has a significance of 0.006. The significance value of earning variable is smaller than the level of significant (α) value of 0.05. The F test value count (3.150) is greater than the value of the F table (2.170). Disaggregate earning variables that were tested simultaneously influence the future operating cash flow.

Table 4: Multiple Linear Regression Analysis of Disaggregate Earning on Future Cash Flow Result

Variable	Model 3		
	Coefficient	T	Sig
Constant	0,019	2,043	0,043
OCF	0,110	2,596	0,010
Δ PAY	0,758	1,166	0,246
Δ INV	0,309	-0,077	0,939

ΔREC	0,682	0,434	0,665
DEP	0,134	1,544	0,125
OTHER	0,263	0,709	0,479
R	0,348		
R ²	0,121		
Adjusted R2	0,083		
F Test	3,150		
Sig	0,006		

The significance value of the regression test of the first analysis model is 0.004 and the third analysis model is 0.006. The coefficient of determination or R2 for earnings and disaggregate variables earnings towards future cash flow is 5.6% and 12.1%. The adjusted R2 value for the earnings analysis model for the future cash flow is 0.050. This shows that the earnings variable could explain the future cash flow variable of 5.6%. The adjusted R2 value for the earning analysis model for the future cash flow is 0.083. This shows that the earning variable could affect future cash flow variables by 5% while the rest is influenced by other variables aside from the independent variables used in the study. The value of R2 and adjusted R2 in the third model is greater than the adjusted R2 value in the first model, this value indicates that the disaggregate earning variable is better at predicting the future operating cash flow compared to earning.

4. DISCUSSION

Earning or net income shows significant positive results on future cash flow. This shows that earnings have a positive influence on future cash flow. The earning variable is proportional to the future operating cash flow. The greater the profit generated by the company, the greater the operating cash flow of the company in the upcoming time. Earning generated by the company on the results of company income and costs incurred will be used to operate activities and company investment in the following year and affect the company's cash flow in the following period. Companies could increase profits by multiplying the company's operating income or by reducing the operational costs of the company. If the year's profit is greater, then the funds that could be allocated to the company's operational activities in the next period will increase, and the company could expand its business and develop itself. Investors will look at the company's financial statements before deciding to invest or not. One of the main factors that investors choose in decision making is paying special attention to stock prices. Competency, organizational commitment, and professionalism of officers may increase the readiness of officers.

Total accruals show significant positive results for future cash flow. The results of this study prove the relationship between total accrual to future cash flow. Total accrual affects the information related to cash flow and its expectations in the

following year's operations and investment activities carried out by management. The greater the total accrual value and profit made by the company, then the operational cash flow of the company will also increase in the future. The profit generated by the company in the current year from the company's revenue and costs incurred is used for operating activities and company investment the following year. Components in total accruals themselves indicate changes in accounts receivable, changes in trade debt, changes in inventory, and depreciation. This component could have an impact on the future operating cash flow. The company's strategy determines an investor's decision before they decide to invest; this enables them to generate a profitable investment and could increase the stock price, causing the price to book value to increase as well.

5. CONCLUSION

The disaggregating earnings component has the ability better than earnings in predicting future cash flows. Disaggregate earnings have a coefficient of determination or adjusted R2 greater than the value of the adjusted R2 of earning variable. The results show that the disaggregate earnings variable is better than earnings in predicting the future operating cash flow. The adjusted R2 value in the disaggregate earning variable is greater because the disaggregate earning variable is more specific in predicting the

future operating cash flow than earning variable which tends to be general in predicting future operating cash flow. The accrual component of profit does not only provide information about cash flows but also expectations of future cash flows related to operating activities and future investments based on the management of the company. Disaggregate earnings have superior predictive ability than cash flows for future cash flows. Cash flow from operations has more power in predicting future cash flows than earnings and traditional cash flow measures. Further, the predictability of both earnings and cash flow from operations significantly increases with firm size. However, the superiority of cash flow from operations to earnings in predicting future cash flows is robust across small, medium and large firms.

Earning has a positive influence on the future operating cash flows. Disaggregate earning, however, is more specific in predicting the future operating cash flow, while earning variables, on the other hand, tends to be more general in making predictions. This shows that the operating cash flow in the following year could be predicted using the disaggregating of earning in the company's current year.

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