THE PREDICTIVE POWER OF EARNINGS AND CASH FLOWS (TESTING AT THE EVERY STAGE OF COMPANY'S LIFE CYCLE)

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ABSTRACT

Earnings and cash flow are the two important factors in the company's life cycle. The research objective of this study is to determine the effect of earnings, overall cash flow, and components of earnings on future cash flows of manufacturing companies listed on the Indonesia Stock Exchange at the every stage of company's lifecycle cycle. The sample used consists of 99 manufacturing companies listed on Indonesia Stock Exchange (IDX). Secondary data on the company's financial statement was taken from the period 2006 to 2010 and these were obtained from ICMD (Indonesia Capital Market Directory) and IDX. A data analysis technique for testing the research problems is linear regression analysis. The results show earnings, overall cash flow, and cash flow components have significant predictive power for future earnings and cash flows.

Key words: *Earnings, Operating Cash Flow, Investing Cash Flow, Cash Flow Financing, and Life Cycle.*

PENGARUH KEMAMPUAN LABA DAN ARUS KAS DALAM MEMPREDIKSI LABA DAN ARUS KAS (PENGUJIAN PADA TIAP TAHAP SIKLUS HIDUP PERUSAHAAN)

ABSTRAK

Laba dan arus kas adalah dua faktor penting dalam siklus hidup perusahaan. Penelitian Tujuan penelitian ini adalah untuk mengetahui pengaruh laba, arus kas secara keseluruhan, dan komponen laba terhadap arus kas masa depan perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia pada setiap tahap siklus siklus hidup perusahaan. Sampel yang digunakan terdiri dari 99 perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI). Data sekunder pada laporan keuangan perusahaan diambil dari periode 2006-2010 dan ini diperoleh dari ICMD (Indonesia Capital Market Directory) dan BEI. Sebuah teknik analisis data untuk menguji masalah penelitian adalah analisis regresi linier. Hasil penelitian menunjukkan laba, arus kas secara keseluruhan, dan komponen arus kas memiliki daya prediksi yang signifikan pada laba masa depan dan arus kas.

Kata Kunci: *Laba, Arus Kas Operasi, Arus Kas Investasi, Arus Kas Keuangan, dan Siklus Hidup.*

INTRODUCTION

It has been known that the main objective of business is to get profit. In addition, earnings information can be used by capital market investors in making decision on buying or selling stocks. Researchers, such as Foster (1977) and Watts and Zimmerman (1986) in Zaki Baridwan and Parawiyati (1998), have investigated the relationship between accounting income and cash flow. They state that the process of generating cash flow have an effect on the changes in stock prices when related to unexpected earnings

Furthermore, research on earnings prediction and future cash flows can also be done by including the components of cash flow and the company's life cycle factors to obtain empirical evidence on earnings and cash flow predictions of the future earnings. Information on the components of cash flows is needed to understand the operating, financing and investing activities made by companies, and this information is critical in predicting future earnings and cash flows. On the other hand, the company's life cycle factors need to be considered for determining the value-relevance of income and future cash flows of the company.

Another study on accounting performance measures with life-cycle factors have been done by Anthony and Ramesh (1992) in Sari Atmini (2002) and Black (1998) in Sari Atmini (2002). Anthony and Ramesh (1992) in Sari Atmini (2002) suggest that the market response to two accounting performance measures, namely sales growth and capital investment is a function of the stage of the company lifecycle. Black (1998) in Sari Atmini (2002) find out that the company's life cycle affects value-relevance measure of earnings and cash flow.

The same research on earnings and cash flows to predict earnings and the company's future cash flows was also carried out in Indonesia. In connection with such studies, this research attempts to add life cycle factors and components of the company's cash flow in the form of operating, investing, and financing activities in the prediction of future earnings and cash flows of the company. This study uses a sample of manufacturing companies because the population of manufacturing firms in Indonesia Stock Exchange is relatively larger than other types of industries, thus allowing a greater sampling.

THEORETICAL AND HYPOTHESIS

Prediction or Forecasting

According to Heizer and Render (2007:136), Forecasting is an art and science to predict future events. This can be done by showing retrieval of past data and placing it into the future through a form of mathematical models.

Financial Statements

Financial statements are prepared and presented by the management of a company to internal and external parties, which contains all the business activities of a business entity as a form of accountability and management communications to the parties who need them(SFAC No. 1).

Profit

Profit is the change in equity of a business entity between two different time periods, excluding changes due to investments and distributions to owners. Capital is expressed in terms of value and is based on a certain scale (SFAC No. 1).

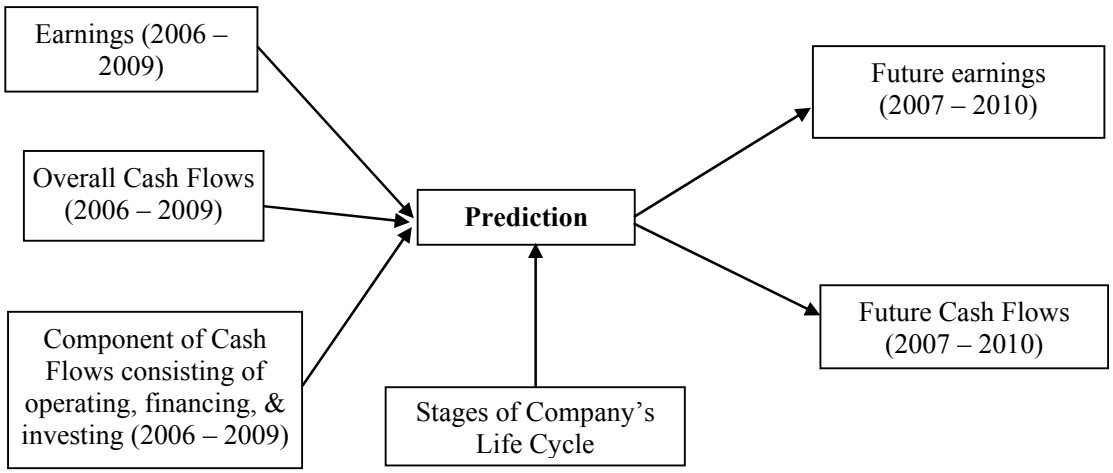
Cash Flow Statement

The main objective of statement of cash flows is to provide information about the cash receipts and disbursements of an entity during a certain period. Another aim is to provide information about the operating, investing, and financing of these entities on a cash basis (SFAC No. 1).

Lifecycle of Company

The life cycle of the company consists of four main phases, namely pioneering, expansion, maturity, and decline (Pashley and Philippatos) in Sari Atmini (2002). Black (1998) in Sari Atmini (2002) mentions that pioneering

Figure 1
Research Framework



stage as a start-ups stage and calls the expansion stage as the growth phase.

A company at the start-up usually has low sales volume and suffers losses due to start-up costs and low liquidity levels. Most of the funds come from loans. Generally, the company does not distribute dividends. At growth stage, the company experiences an increase in sales, profits, liquidity, and increased the ratio of equity to debt, as well as starting to pay dividends. The company begins to diversify in closely related line of products. At maturity stage, the company achieves a peak level of sales but profit declined due to price competition. The company has a high liquidity level and it becomes 'cash flow'. It uses this cash flow to pay high dividends. External acquisition is an interesting way for a company to invest the surplus funds. At this stage of decline, the demand for the company's products is very low. The sales at this stage drop significantly resulting in bogged losses and dividend payments (Pashley and Philippatos (1990) in Sari Atmini (2002)).

Research Framework

Determining the flow of influence among the variables that will be examined based on the theory or previous researches can be seen in Figure 1 as the framework of this study.

Research Hypothesis

H1: Previous year earnings affect the futures earnings and cash flows at the each stage of the company's life cycle.

H2: Previous year overall cash flows affect the future earnings and cash flows at the each stage of the company's life cycle.

H3: Previous year components of cash flows, namely operating activities, affect the futures earnings and cash flows at the each stage of the company's life cycle.

H4: Previous year components of cash flows, namely investing activities, affect the futures earnings and cash flows at the each stage of the company's life cycle.

H5: Previous year components of cash flows, namely financing activities, affect the futures earnings and cash flows at the each stage of the company's life cycle.

RESEARCH METHOD

Research Design

This study is a kind of deductive-inductive research, aimed at testing the hypothesis through the validation of the theory.

Identification of Variables

The variables used in this study are as follows:

Categorical Variables:

Categorical variables are used as a control variable in addressing the life cycle of the

company. The categorical variables are as follows:
1. Sales Growth (SG)
2. Dividend Payout Ratio (DP)
3. Age of Firm (AGE)
Dependent variables are:
Y1: Future earnings
Y2: Future cash flows

Operational Definition and Measurement of Variables

Here are three operational variables and measurement:
The formula used to calculate DP, SG, and AGE are as follows:

$$DP_t = \frac{DIV_t}{IBED_t} \times 100. \quad (1)$$

$$SG_t = \frac{SALES_t - SALES_{t-1}}{SALES_{t-1}} \times 100. \quad (2)$$

$$AGE_t = AGE_{currentyear} - AGE_{basedyear}. \quad (3)$$

Where:
DIV_t = dividend in year
$IBED_t$ = income before extraordinary items and discontinued operations in year
$SALES_t$ = net sales in year t
$AGE_{current\ yea}$ = current year
$AGE_{basedyear}$ = year in which the company established

Next step is to classify the sample companies according to their life cycle, namely start-up, growth, maturity, and decline. The steps in classifying the company's life cycle are as follows:
a. There is no company classified as in start-up or introduction phase. According to Black (1998) based on the method of Anthony and Ramesh (1992) in Sari Atmini (2002) classification criteria of start-up phase are as follows: (1) the company was established between the years 2006-2010 in accordance with the observation period, (2) the company was not formed as a result of divestiture, merger, or other form of restructuring, (3) the company began to sell at least one year prior to going public, (4) only corporate data during the first three years after the date of establishment of the company are included. In this study there is no single company does not meet criteria number 3.
b. For each year of observation, the value of each classification variable of the entire company is calculated using equation (1) to (3) sorted and ranked, with one as the highest score for the variable.
c. The scores of sales growth variable are divided into five quintiles. The cores of dividend payout variable and firm age are combined and divided into five quintiles. The Quintile of sales growth and the combined quintile of dividend payout and firm age are then added to obtain the final quintile.
d. Companies are classified into growth stage if they are on the first or second quintile of the final quintile
e. Companies are classified into mature stage when they are the third or fourth quintile or final quintile.
f. Companies are classified into decline stage when they are in fifth quintile or last quintile.

Prior year profits are profits in2006-2009. Prior year overall cash flow are the overall cash flows in 2006-2009. Operating cash flows are the main source of company's cash flows and they come from the normal activity of the firm. Previous year operating cash flows are the operating cash flows from 2006 – 2009. The prior year investing and financing cash flows cash flows are the investing and financing cash flows from 2006 – 2009, respectively.

Future earnings are the earnings one year from current period, namely 2007 – 2010. While, future cash flows are the cash flows one year from current period, namely 2007 – 2010

Population

The population of this study are the financial statements of manufacturing companies for 5 (five) years, beginning in 2006-2010.

Sample and Sampling Technique

The sample of this study is manufacturing companies listed on the Indonesia Stock Exchange and the Company publishes its fi-

Table 1
Sample Selection

Description	Number of Firms
Number of initial manufacturing firms	148
Reduction based on the criteria	
1. Incomplete data 2006-2010	(40)
2. Company financial report in foreign exchange.	(9)
The final sample of manufacturing firms	99

Sources: Data processing results.

Table 2
Sales Growth Rate, Dividend Payout, and Age (2006)

Description	N	Min	Max	Mean	STD
GROWTH	**40**				
Sales growth rate (%)		12.39	379.99	61.46	82.25
Dividend payout (%)		0.00	55.40	11.35	17.29
Age (years)		9	93	31.85	17.77
MATURE	**40**				
Sales growth rate (%)		-9.92	11.69	0.62	6.56
Dividend payout (%)		0.00	75.60	9.71	18.79
Age (years)		14	74	33.47	13.06
DECLINE	**19**				
Sales growth rate (%)		80.56	-11.17	-28.47	17.07
Dividend payout (%)		0.00	33.29	5.42	11.51
Age (years)		7	47	24.21	9.82
TOTAL	**99**				

Sources: Data processing results.

nancial statements in rupiah. The sampling technique used is non probability sampling with purposive sampling.

Data Collection Methods

The data used in this study is secondary data taken from the consolidated financial data of companies listed on the Indonesia Stock Exchange 2006-2010. This was done by means of on documentation a technique that is by studying and using financial statements.

Data Analysis Techniques

Statistical Test

After obtaining data on the life cycle of the company, the next step is to analyze the data. Based on variables that have been described above, the linear regression model is formulated as follows:

Start-up, Growth, Maturity, and Decline Phases

$$L_t = a + b_1L_{t-1} + b_2AKS_{-1} + b_3AKO_{-1} + b_4AKI_{-1} + b_5AKP_{-1} + e. \quad (4)$$

$$Ak_t = a + b_1L_{t-1} + b_2AKS_{-1} + b_3AKO_{-1} + b_4AKI_{-1} + b_5AKP_{-1} + e. \quad (5)$$

Where:

L_t = Future profit

Ak_t = Future cash flows

L_{t-1} = Previous year earnings

AKS_{-1} = Previous full year cash flow before

AKO_{-1} = Previous year operating activity cash flows

AKI_{-1} = Previous year investing activity cash flows

AKP_{-1} = Previous year financing activity cash flows.

Hypothesis Testing

Test of multiple regression models:

If the significant value of $F < 0.05$, then the model is fit.

If the significant value of $F \geq 0.05$, then the

Table 3
Sales Growth Rate, Dividend Payout, and Age (2007)

Description	N	Min	Max	Mean	STD
GROWTH	**40**				
Sales growth rate (%)		25.18	2,115.86	114.66	329.62
Dividend payout (%)		0.00	31.00	4.08	8.93
Age (years)		8	54	29.08	11.05
MATURE	**40**				
Sales growth rate (%)		3.99	24.54	13.49	5.60
Dividend payout (%)		0.00	239.15	21.17	43.12
Age (years)		11	76	35.38	16.44
DECLINE	**19**				
Sales growth rate (%)		-69.46	2.41	-21.39	24.23
Dividend payout (%)		0.00	72.42	6.68	18.10
Age (years)		10	94	30.68	18.32
TOTAL	**99**				

Sources: Data processing results.

Table 4
Sales Growth Rate, Dividend Payout, and Age (2008)

Description	N	Min	Max	Mean	STD
GROWTH	**40**				
Sales growth rate (%)		27.21	546.69	82.34	126.45
Dividend payout (%)		0.00	121.52	11.04	26.12
Age (years)		15	76	32.97	13.66
MATURE	**40**				
Sales growth rate (%)		3.73	27.18	16.68	6.54
Dividend payout (%)		0.00	59.35	2.78	11.20
Age (years)		9	95	34.68	18.14
DECLINE	**19**				
Sales growth rate (%)		94.56	2.37	-25.47	31.86
Dividend payout (%)		0.00	52.52	2.76	12.04
Age (years)		11	55	29.16	9.64
TOTAL	**99**				

Sources: Data processing results.

model is not fit.
Test of partial effect: *t* test
Formulation of hypotheses:
H0: $\beta i = 0$. It means that there is no partial significant effect of independent variable on the dependent variable
Ha: $\beta i \neq 0$. It means that the independent variable partially effects the dependent variable

DATA ANALYSIS AND DISCUSSION

This research takes the population of manufacturing firms listed on the Jakarta Stock Exchange 2006-2010. The observation period is five years, from 2006 to 2010 (see Table 1).

Data Analysis

Descriptive Analysis

The researchers firstly conducted descriptive analysis of each variable used in this study as shown in Table 2. Table 2 presents the variables used to classify firms into the life cycle of 2006. In 2006, the company is in growth stage. The average percentage

Table 5
Sales Growth Rate, Dividend Payout, and Age (2009)

Description	N	Min	Max	Mean	STD
GROWTH	**40**				
Sales growth rate (%)		4.49	1,070.38	53.11	172.55
Dividend payout (%)		0.00	120.00	14.49	24.81
Age (years)		14	96	38.72	17.90
MATURE	**40**				
Sales growth rate (%)		-21.45	3.78	-8.04	6.85
Dividend payout (%)		0.00	93.00	8.93	17.75
Age (years)		10	78	31.82	13.10
DECLINE	**19**				
Sales growth rate (%)		-97.96	-21.48	-44.92	27.54
Dividend payout (%)		0.00	12.00	0.82	2.81
Age (years)		12	38	28.26	8.43
TOTAL	**99**				

Sources: Data processing results.

Table 6
Sales Growth Rate, Dividend Payout, and Age (2010)

Description	N	Min	Max	Mean	STD
GROWTH	**40**				
Sales growth rate (%)		14.40	1,053.20	68.09	166.66
Dividend payout (%)		0.00	133.00	7.07	23.28
Age (years)		17	57	31.58	9.70
MATURE	**40**				
Sales growth rate (%)		-22.00	14.31	7.08	4.75
Dividend payout (%)		0.00	77.49	10.35	19.96
Age (years)		13	97	37.90	17.32
DECLINE	**19**				
Sales growth rate (%)		-90.49	0.75	-17.15	19.76
Dividend payout (%)		0.00	264.23	27.22	67.74
Age (years)		14.40	1,053.20	68.09	166.66
TOTAL	**99**				

Sources: Data processing results.

growth in sales at this stage is 61.46 percent, higher than that at mature stage, 0.62 percent, and that at the decline stage, -28.47 percent.

Table 3 presents the variables used to classify firms into the life cycle of 2007. In 2007, the company is in growth phase. The average percentage growth in sales of at this stage, 114.66 percent, is higher than that of at mature stage, 13.49 percent, and that of at the decline stage, -24.23 percent.

Table 4 presents the variables used to classify firms into the life cycle of 2008. In 2008, the company is in growth phase. The average percentage growth in sales of at this stage, 82.34 percent, is higher than that of at mature stage, 16.68 percent, and that of at the decline stage, -25.47 percent.

Table 5 presents the variables used to classify firms into the life cycle of 2009. In 2009, the company is in growth phase. The average percentage growth in sales of at this stage, 53.11 percent, is higher than that of at mature stage, -8.04 percent, and that of at

Table 7
Descriptive Statistics of Earnings and Cash Flows at the Growth Stage

Variables	N	Mean
Lt-1 (2006,2007,2008,2009)	40	342,811,330,000
AKO_{t-1} (2006,2007,2008,2009)	40	15,397,870,000
AKI_{t-1} (2006,2007,2008,2009)	40	-960,623,570,000
AKP_{t-1} (2006,2007,2008,2009)	40	-114,663,770,000
AKS_{t-1} (2006,2007,2008,2009)	40	312,658,620,000
Lt (2007,2008,2009,2010)	40	485,343,650,000
AKS (2007,2008,2009,2010)	40	147,989,580,000

Sources: Data processing results.

Table 8
Descriptive Statistics of Earnings and Cash Flows at the Mature Stage

Variables	N	Mean
Lt-1 (2006,2007,2008,2009)	40	342,811,330,000
AKO_{t-1} (2006,2007,2008,2009)	40	15,397,870,000
AKI_{t-1} (2006,2007,2008,2009)	40	-960,623,570,000
AKP_{t-1} (2006,2007,2008,2009)	40	-114,663,770,000
AKS_{t-1} (2006,2007,2008,2009)	40	312,658,620,000
Lt (2007,2008,2009,2010)	40	485,343,650,000
AKS (2007,2008,2009,2010)	40	147,989,580,000

Sources: Data processing results.

Table 9
Descriptive Statistics of Earnings and Cash Flows at the Decline Stage

Variables	N	Mean
Lt-1 (2006,2007,2008,2009)	40	216,027,570,000
AKO_{t-1} (2006,2007,2008,2009)	40	296,593,760,000
AKI_{t-1} (2006,2007,2008,2009)	40	-370,430,520,000
AKP_{t-1} (2006,2007,2008,2009)	40	100,345,440,000
AKS_{t-1} (2006,2007,2008,2009)	40	26,036,170,000

Sources: Data processing results.

the decline stage, -44.92 percent.

Table 6 presents the variables used to classify firms into the life cycle of 2010. In 2010, the company is in growth phase. The average percentage growth in sales of at this stage, 68.09 percent, is higher than that of at mature stage, -7.08 percent, and that of at the decline stage, -17.15 percent.

After presenting the descriptive analysis of the variables used in the classification, this study first perform descriptive analysis of the variables that will be used in the study.

Table 7 presents the mean of variables in regression. At growth stage, the previous year of average earnings, operating cash flows, investing cash flows, financing cash flows, overall cash flows, future earnings, and future of cash flows are Rp.34,281,133,000, Rp.15,397,870,000, Rp.-960,623,570,000, Rp.-114,663,770,000, Rp.312,658,620,000, Rp.485,343,650,000, and Rp.14,798,980,000, respectively.

Table 8 presents the mean of variables in regression. At mature stage, the previous year of average earnings, operating cash flows, investing cash flows, financing cash flows, overall cash flows, future earnings, and future of cash flows are Rp.204,471,830,000, Rp.339,967,020,00,

Table 10
Model Summary and ANOVA at Growth Phase (2006-2009)

No.	Dependent Variable	Independent Variable	Year	Adjusted R Square	F Sig.
1	Earnings (2007-2010)	Earnings, AKO, AKI, AKP, AKS	2006 - 2009	0.99	0.00
2	AKS (2007-2010)	Earnings, AKO, AKI, AKP, AKS		0.91	0.00

Sources: Data processing results.

Table 11
Model Summary and ANOVA at Mature Phase (2006-2009)

No.	Dependent Variable	Independent Variable	Year	Adjusted R Square	F Sig.
1	Earnings (2007-2010)	Eaings, AKO, AKI, AKP, AKS	2006 - 2009	0.99	0.00
2	AKS (2007-2010)	Earnings, AKO, AKI, AKP, AKS		0.98	0.00

Sources: Data processing results.

Table 12
Model Summary and ANOVA at Decline Phase (2006-2009)

No.	Dependent Variable	Independent Variable	Year	Adjusted R Square	F Sig.
1	Earnings (2007-2010)	Eaings, AKO, AKI, AKP, AKS	2006 - 2009	0.99	0.00
2	AKS (2007-2010)	Earnings, AKO, AKI, AKP, AKS		0.51	0.00

Sources: Data processing results.

Rp.-125,903,210,000, Rp.205,405,260,000, Rp.39,962,920,00 Rp.350,153,670,000, and Rp.114,243,010,000, respectively.

Table 9 presents the mean of variables in regression. At decline stage, the previous year of average earnings, operating cash flows, investing cash flows, financing cash flows, overall cash flows, future earnings, and future of cash flows are Rp.216,027,570,000, Rp.296,593,760,000, Rp.-370,430,520,00, Rp.100,345,440,000, Rp.26,036,170,000, Rp.256,694,360,000, and Rp.19,975,970,000, respectively. During the decline stage, the company experienced a slight increase in the average earnings from Rp.216,027,570,000 to be Rp.256,694,360,000 in the current year, an increase of only Rp.40,666,790,000

Linear Regression Analysis

This concerns Coefficient of Determination Test and Simultaneous Significance Testing (whole year): Table 10 presents the model summary and ANOVA of the variables included in the regression model of the growth stage, namely earnings, AKO, AKI, AKP, and AKS (2006-2009) and the predicted variable of future earnings (2007-2010). From the SPSS output display on the prediction of future earnings, the model has an adjusted R^2 of 0.99, This means that 99.0% variation in future earnings can be explained by the variation of the independent variables. The ANOVA test or F test indicates the probability of 0.00. This value is much smaller than 0.05, and therefore the regression model can be used to predict future earnings. In other words, previous year earnings, operating cash flows, financing cash flows, investing cash flows, and overall cash flows affect future earnings.

Table 13
Previous Year Earnings, AKO, AKI, AKP, and AKS (2006-2009) as Predictors of Future Earnings (2007-2010) at the Growth Stage

No.	Independent Variable	B	t	Sig.
Dependent Variable : Future earnings				
1	Previous year earnings	0.95	50.66	0.00
2	Previous year AKO	-0.01	-1.70	0.09
3	Previous year AKI	0.01	-2.18	0.04
4	Previous year AKP	-0.03	-0.98	0.33
5	Previous year AKS	0.00	-0.21	0.84

Sources: Data processing results.

Table 14
Previous Year Earnings, AKO, AKI, AKP, and AKS (2006-2009) as Predictors of Overall Future Cash Flows (2007-2010) at the Growth Stage

No.	Independent Variable	B	t	Sig.
Dependent Variable : Overall future cash flows (AKS)				
1	Previous year earnings	-0.50	-5.17	0.00
2	Previous year AKO	-0.26	-8.58	0.00
3	Previous year AKI	-0.41	-11.57	0.00
4	Previous year AKP	-0.30	-0.17	0.86
5	Previous year AKS	-0.03	-7.15	0.00

Sources: Data processing results.

Table 15
Previous Year Earnings, AKO, AKI, AKP, and AKS (2006-2009) as Predictors of Future Earnings (2007-2010) at the Mature Stage

No.	Independent Variable	B	t	Sig.
Dependent Variable : Future earnings				
1	Previous year earnings	0.92	40.57	0.00
2	Previous year AKO	0.05	5.78	0.00
3	Previous year AKI	0.06	5.09	0.00
4	Previous year AKP	0.10	2.69	0.01
5	Previous year AKS	-0.06	-1.79	0.08

Sources: Data processing results.

At the growth stage, the previous year earnings, AKO, AKI, AKP, and AKS can significantly predict overall future cash flows. From the SPSS output display on the prediction of future earnings, the model has an adjusted R^2 of 0.91, This means that 91% variation in future earnings can be explained by the variation of the independent variables. The ANOVA test or F test indicates the probability of 0.00. This value is much smaller than 0.05, and therefore, the regression model can be used to predict future earnings. In other words, previous year earnings, operating cash flows, financing cash flows, investing cash flows, and overall cash flows affect future earnings at the growth stage.

Table 11 presents the model summary and ANOVA of the variables included in the regression model of the mature stage, namely earnings, AKO, AKI, AKP, and AKS (2006-2009) and the predicted variable of future earnings (2007-2010). From the SPSS output display on the prediction of

Table 16
Previous Year Earnings, AKO, AKI, AKP, and AKS (2006-2009) as Predictors of Overall Future Cash Flows (2007-2010) at the Mature Stage

No.	Independent Variable	B	t	Sig.
Dependent Variable : Overall future cash flows (AKS)				
1	Previous year earnings	0.09	1.49	0.14
2	Previous year AKO	0.04	1.81	0.08
3	Previous year AKI	-0.26	-7.39	0.00
4	Previous year AKP	0.34	3.33	0.00
5	Previous year AKS	0.67	7.23	0.00

Sources: Data processing results.

Table 17
Previous Year Earnings, AKO, AKI, AKP, and AKS (2006-2009) as Predictors of Future Earnings (2007-2010) at the Decline Stage

No.	Independent Variable	B	t	Sig.
Dependent Variable : Future earnings				
1	Previous year earnings	0.72	16.94	0.00
2	Previous year AKO	0.21	4.23	0.00
3	Previous year AKI	0.08	1.41	0.18
4	Previous year AKP	-0.02	-0.42	0.68
5	Previous year AKS	-0.14	-2.44	0.03

Sources: Data processing results.

Table 18
Previous Year Earnings, AKO, AKI, AKP, and AKS (2006-2009) as Predictors of Overall Future Cash Flows (2007-2010) at the Decline Stage

No.	Independent Variable	B	t	Sig.
Dependent Variable : Overall future cash flows (AKS)				
1	Previous year earnings	0.20	-2.20	0.04
2	Previous year AKO	0.23	2.28	0.04
3	Previous year AKI	0.28	-0.46	0.65
4	Previous year AKP	0.23	-0.76	0.46
5	Previous year AKS	0.27	1.54	0.15

Sources: Data processing results.

future earnings, the model has an adjusted R^2 of 0.99. This means that 99.0% variation in future earnings can be explained by the variation of the independent variables. The ANOVA test or F test indicates the probability of 0.00. This value is much smaller than 0.05, and therefore the regression model can be used to predict future earnings. In other words, previous year earnings, operating cash flows, financing cash flows, investing cash flows, and overall cash flows affect future earnings.

At the mature stage, previous year earnings, AKO, AKI, AKP, and AKS can significantly predict overall future cash flows. From the SPSS output display on the prediction of future earnings, the model has an adjusted R^2 of 0.98. This means that 98% variation in future earnings can be explained by the variation of the independent variables. The ANOVA test or F test indicates the probability of 0.00. This value is much smaller than 0.05, and therefore the regression model can be used to predict future

earnings. In other words, previous year earnings, operating cash flows, financing cash flows, investing cash flows, and overall cash flows affect future earnings at the mature stage.

Table 12 presents the model summary and ANOVA of the variables included in the regression model of the decline stage, namely earnings, AKO, AKI, AKP, and AKS (2006-2009) and the predicted variable of future earnings (2007-2010). From the SPSS output display on the prediction of future earnings, the model has an adjusted R^2 of 0.99, This means that 99.0% variation in future earnings can be explained by the variation of the independent variables. The ANOVA test or F test indicates the probability of 0.00.

This value is much smaller than 0.05, and therefore the regression model can be used to predict future earnings. In other words, previous year earnings, operating cash flows, financing cash flows, investing cash flows, and overall cash flows affect future earnings. At the decline stage, previous year earnings, AKO, AKI, AKP, and AKS can significantly predict overall future cash flows. From the SPSS output display on the prediction of future earnings, the model has an adjusted R^2 of 0.51,

It means that 51% variation in future earnings can be explained by the variation of the independent variables. The ANOVA test or F test indicates the probability of 0.00. This value is much smaller than 0.05, and therefore the regression model can be used to predict future earnings. In other words, previous year earnings, operating cash flows, financing cash flows, investing cash flows, and overall cash flows affect future earnings at the decline stage.

Individual Parameter Significance Testing (All Year)

Table 13 and Table14 show the result of parameters or coefficient test at the growth stage. Table 13 shows the results of predicted future earnings (2007-2010), the result shows that of five predictors, only previous earnings and AKI have significant effect on future earnings, while AKO, AKP, and AKS have no significant effect on future earnings.

Table 14 shows the results of predicted overall future cash flows (2007-2010). The result shows that of five predictors, four variables namely previous earnings, AKO, AKI, and AKS have significant effect on the overall future cash flows, while only previous AKP has no significant effect the overall future cash flows.

Tables 15 and 16 show the result of parameters or coefficient *t* test is at the mature stage. Table 15 shows the results of predicted future earnings (2007-2010), the result shows that of five predictors, only previous AKP has no significant effect on future earnings, while previous AKO, AKP, and AKS have significant effect on future earnings.

Table 16 shows the results of predicted overall future cash flows (2007-2010). The result shows that of five predictors, previous AKI, AKP and AKS have significant effect on the overall future cash flows, while previous earnings and AKO have no significant effect on the overall future cash flows.

Tables 17 and 18 show the result of parameters or coefficient *t* test is at the decline stage. Table 17 shows the results of predicted future earnings (2007-2010), the result shows that of five predictors, only previous AKI and AKP have no significant effect on future earnings, while previous earnings, AKO, and AKS have significant effect on future earnings.

Table 18 shows the results of predicted overall future cash flows (2007-2010). The result shows that of five predictors, only previous earnings and AKO has significant effect on the overall future cash flows, while previous AKI, AKP, and AKI have no significant effect on the overall future cash flows.

Discussion

This study aimed to determine the predictive power of earnings, cash flow components,

Table 19
Table of Conclusion

	Start-Up	Growth	Mature	Decline
Previous year earnings	Not significant	Significant	Not significant	Significant
Previous year operating cash flows	Not significant	Not significant	Not significant	Significant
Previous year investing cash flows	Not significant	Significant	Significant	Not significant
Previous year financing cash flows	Not significant	Not significant	Significant	Not significant
Previous year overall cash flows	Not significant	Not significant	Not significant	Not significant

Sources: Data processing results.

and the overall cash flow to future earnings and cash flows at each stage of the life cycle of a manufacturing company from 2006-2010. The results of each variable at each stage of the life cycle of the company are discussed in the following.

Start-Up Stage

In Start-up stage, this study could not find any firm classified as a start-up firm. Consequently, the test of this stage could not be performed. This result is line with Black (1998).

Growth Stage

In the Growth stage, hypothesis H1 is accepted as the previous year earnings affect future earnings and future cash flows. This is consistent with research by Zaki Baridwan(1998) which states that the earnings and cash flow can be useful information to be considered in decision making made by analysts, investors, and managers to determine the performance of a company's prospects for the coming year.

In the Growth stage, hypothesis H2 is rejected because of the overall previous year cash affects only the future cash flow and has no effect on future earnings. This happens because, according to Myers (1977) in Sari Atmini (2002), the proportion of the asset components in place and growth opportunities varies depending on the company's life cycle stage. Similarly, value relevance of accounting performance measures is also different.

In the Growth stage, hypothesis H3 is rejected due to prior year operating cash flow affects only the future cash flows and have no effect on future earnings. At this growth stage, companies have been able to generate operating cash flow. According to Myers (1977) in Sari Atmini (2002) the proportion of the asset components in place and growth opportunities vary depending on the company's life cycle stage. Similarly, value relevance of accounting performance measures are also different.

In the Growth stage, hypothesis H4 can be accepted since the previous year investing cash flows affect future earnings and future cash flows. This is consistent with research by Zaki Baridwan (1998) which states that the earnings and cash flow information can be useful information in decision making made by analysts, investors, and managers to determine the performance of a company's prospects for the coming year.

In the Growth stage, hypothesis H5 could not be accepted since the previous year financing cash flows has no effect on future earnings and future cash flows. This is not in line with the research by Zaki Baridwan (1998) which states that the earnings and cash flow information can be useful information in decision making made by analysts, investors, and managers to determine the performance of a company's prospects for the coming year. At this growth, the company still needs funding for growth opportunities.

Mature Stage

In the Mature stage, hypothesis H1 is rejected because the previous year earnings affect only future earnings but has no effect on future cash flows. This happens because, according to Myers (1977) in Sari Atmini (2002), the proportions of the asset components in place and growth opportunities vary depending on the company's life cycle

stage. Similarly, value relevance of accounting performance measures are also different.

In the Mature stage, hypothesis H2 is rejected because the overall previous year cash flow affects only the future cash flow and has no effect on future earnings. This happens because, according to Myers (1977) in Sari Atmini (2002), the proportion of the asset components in place and growth opportunities varies depending on the company's life cycle stage. Similarly, value relevance of accounting performance measures is also different.

In the Mature stage, hypothesis H3 is rejected because the previous year operating cash flow only affect future earnings and has no effect on future cash flows. This happens because, according to Myers (1977) in Sari Atmini (2002), the proportion of the asset components in place and growth opportunities varies depending on the company's life cycle stage. Similarly, value relevance of accounting performance measures is also different.

In the Mature stage, hypothesis H4 Cash Flow can be accepted since the previous year's investing cash flows affect future earnings and future cash flows. This is consistent with Zaki Baridwan (1998) which states that the earnings and cash flows of information that can be useful for consideration in decision making by analysts, investors, and managers to determine the performance of a company's prospects for the coming year.

In the Mature stage, hypothesis H5 could not be accepted since the previous year financing cash flows has no effect on future earnings and future cash flows. This is not in line with the research by Zaki Baridwan (1998) which states that the earnings and cash flow information can be useful information in decision making made by analysts, investors, and managers to determine the performance of a company's prospects for the coming year. At this growth, the company still needs funding for growth opportunities.

Decline Stage

In the decline stage, hypothesis H1 is accepted as the earnings of the previous year affect future earnings and future cash flows. This is not consistent with the research Baridwan Zaki (1998) which states that the earnings and cash flow information can be useful information in decision making made by analysts, investors, and managers to determine the performance of a company's prospects for the coming year.

In the decline stage, hypothesis H2 is rejected because the overall previous year cash flow affects only future earnings and do not affect the future cash flows. This happens because, according to Myers (1977) in Sari Atmini (2002) that the proportion of the component assets in place and growth opportunities vary depending on the company's life cycle stage. Similarly, value relevance of accounting performance measures are also different.

In the decline stage, hypothesis H3 can be accepted since the previous year earnings impact the future earnings and future cash flows. This is consistent with the research by Zaki Baridwan (1998) which states that the earnings and cash flow information can be useful information in decision making made by analysts, investors, and managers to determine the performance of a company's prospects for the coming year.

In the decline stage, investing cash flows of the previous year have no effect on future earnings and future cash flows. In the decline stage, the company has limited growth opportunities. Investors and creditors consider companies have been declining and will most likely fail in so that they limit to extend any funding.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study aimed to investigate the ability of earnings, overall cash flow, and the components of cash flow and earnings in predicting future earnings and future cash flows of manufacturing companies listed on the Indonesia Stock Exchange (at each stage of the

life cycle of the company).

As referred to Table 19, it can be explained that previous year earnings can be used to predict future earnings and cash flow growth at the decline stage. On the contrary, the overall cash flows cannot be used to predict earnings cash flow at the stages of growth, mature and decline. In addition, operating cash flow can be used to predict earnings and cash flow in the decline stage. Investing cash flows can be used to predict earnings and cash flows at the growth and mature stage.

Financing cash flow can be used to predict earnings and cash flow in the mature stage. While for the start-up phase, no single firm can classified belong to this stage. This is consistent with Black (1998) based on the method of Anthony and Ramesh (1992) in Sari Atmini (2002). Black uses classification criteria of start-up phase as follows: (1) the company was established between the years 2006-2010 in accordance with the observation period, (2) the company was not formed as a result of divestiture, merger, or other form of restructuring, (3) the company began to sell at least one year prior to going public, (4) only corporate data during the first three years after the date of establishment of the company are included. In this study there is no single company meets criteria number three, because the companies included in the sample, all of them have sold more than a year before it went public.

Cash flow is one measure of the performance of companies that attract major attention from investors and creditors. This is because a company that is growing needs a lot of operating costs to develop the company's market share, to master the technology, and to finance investments in growth opportunities. This condition reflects that a company at the stage of the growth is not a good company, but it can also generate positive profits that provide a good prospect in the future. In the mature stage, the profit generated is higher than that of at the stage of growth and decline. At the mature stage, companies have the highest dividend payout, while at the decline stage there is no dividend paid, due to low sales.

The sample used is restricted to the manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the period of 2006 – 2010, so that the results of this study could not be generalized for other companies outside the group of manufacturing companies listed on the Stock Exchange. In additions, the period is very short, so that there is no company found in the start-up stage. This study does not yield normally distributed data because the inclusion of negative earning, so that normality test could not be performed.

Suggestion for future research; future studies should cover more samples, by adding companies beyond manufacturing industries, so that it can collect more extensive data, future studies should cover larger companies, future studies should test the data normality before performing classification, in order to obtain normally distributed data.

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