

THE INFLUENCE OF SALES GROWTH AND INFLATION RATE ON PROFIT CHANGES IN CONSUMER GOODS COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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Abstract: This study aims to determine the effect of sales growth and the inflation rate on changes in profits in consumer goods companies listed on the Indonesian stock exchange. The population in this study totaled 26 companies obtained using the purposive sampling method for consumer goods companies during the 2017-2021 period and based on predetermined criteria, a sample of 11 consumer goods companies were obtained which were listed on the Indonesia Stock Exchange. The analytical method used is panel data analysis. The results of this study indicate that partially sales growth has a significant effect on profit changes in consumer goods companies listed on the Indonesian stock exchange, the inflation rate has a negative and insignificant effect on profit changes in consumer goods companies listed on the Indonesian stock exchange.



INTRODUCTION

Changes in profits that occur in a company can be used as a basis for investors to determine whether they will buy, sell or hold their investment. Thus, knowing changes in profits earned by companies is very important for users of financial statements because by knowing changes in profits, they can determine whether there is an increase or decrease in a company's financial performance (Fatimah & Kardi, 2018).

Sales is the spearhead of a company. Precise sales forecast is needed, so that the company can prepare everything needed for the production process. By using the sales growth ratio, the company can determine the sales trend of its products from year to year. Sales must be able to cover costs so as to increase profits. The higher the sales growth rate, the higher the profit level generated by the company. So that changes in profit will increase (Silviana & Fun, 2019).

Increased inflation can be a negative signal for investors because rising inflation will reduce company profitability. Low prices, high demand, due to war, money supply and future price predictors lead to constant changes in prices/inflation. This increase in inflation is a negative signal for investors, because rising inflation causes a decrease in company profitability (Dewi et al., 2022).

LITERATURE REVIEW

Sales Growth

Sales growth is the company's ability to obtain profits that have been determined by a target, companies that have high sales growth in a relatively short period of time will certainly be worth more in the view of creditors and investors.

H₁ : Sales growth has a significant effect on profit changes in consumer goods companies listed on the Indonesia Stock Exchange

Inflation Rate

Inflation is defined as a general trend of rising prices that is continuous. Inflation can be calculated based on calculating a group of goods and services consumed by most people. Inflation is feared will have a bad impact both on the economy and social society.

H₂ : The inflation rate has a negative effect on profit changes in consumer goods companies listed on the Indonesia Stock Exchange.

Profit Change

Changes in profit are the increase and decrease in profit earned by the company compared to the previous year. Changes in the increase or decrease in company profits can affect investment decisions for both investors and potential investors who will invest in a company. (Halik et al., 2021; Latiep et al., 2023)

Location and Research Design

In this study secondary data were obtained from financial reports, annual reports of consumer goods companies in the food and beverage sub-sector which are listed on the Indonesia Stock Exchange. This research was conducted for approximately 2 months.

Population or Samples

The population of this study is the financial statements of all companies included in consumer goods companies listed on the Indonesia Stock Exchange from 2017-2021, totaling 26 companies. Meanwhile, the samples are individuals whose characteristics are to be studied which represent the population (Sugiyono, 2017). The sample in this study were consumer goods companies listed on the IDX that consistently reported their annual financial statements, out of 26 companies there were 11 companies that met the research sample criteria.

Data Collection Method

The data is in the form of audited financial reports of finance companies listed on the Indonesia Stock Exchange (IDX) for 2017-2021. The source of data obtained for this study is through financial reports, company annual reports obtained from the website idnfinancial.com period 2017-2021. Data collection techniques used in this research are documentation and literature study methods.

EMPIRICAL RESULTS

A. Descriptive Statistics

Table 1.1 results of descriptive statistical analysis

Date:

04/02/23

Time: 21:59

Sample: 2017 2021

	GrowthSale	Inflation Rate	ChangeProfit
Means	729.2964	0.322000	410.8036
Median	10.27000	0.180000	9.930000
Maximum	50.40000	2.340000	760.1000
Minimum	4578,000	0.010000	94.00000
std. Dev.	618.8827	0.311861	138.2979

Skewness	7.206229	5.826038	3.574843
kurtosis	52.96043	40.17406	16.95303
Jarque-Bera	6196125	3478021	563.3033
probability	0.000000	0.000000	0.000000
sum	4011.130	12.21000	2259,420
Sum Sq.	20682850	5.251880	1032820.
Dev.			
Observations	55	55	55

Source: *OutputViews12, 2023*

Based on the descriptive statistical test table above, it is known that the data or n used in this study are 55 respondents and can be explained as follows:

1) Sales Growth

Sales growth in the 2017-2021 period shows that sales growth has the smallest (minimum) value of 4578,000 and the largest (maximum) value is 50.40000, the average (mean) of the sales growth value is 729.2964 and the standard deviation value is 618.8827.

2) Inflation Rate

The inflation rate in the 2017-2021 period shows that the inflation rate has the smallest (minimum) value of 0.010000 and the largest (maximum) value is 2.340000, the average (mean) of the inflation rate is 0.322000 and the standard deviation value is 0.311861.

3) Profit Change

Changes in profit in the 2017-2021 period show that changes in profit have the smallest (minimum) value of 94.00000 and the largest (maximum) value of 760.1000, the average (mean) of the profit change value is 410.8036 and the standard deviation value is 138.2979.

B. Model submission technique

Chow test

Table 1.2 Chow test results

Redundant Fixed Effects

Tests

Equation: FIXED

Test cross-section fixed effects

Effect Test	Statistics	df	Prob.
Cross-section F	1.137179	(10.42)	0.3589
Chi-square cross-sections	13.178704	10	0.2139

Source: *OutputViews12, 2023*

Statistical distribution values from the chi square based on the results of calculations using eviews which is 13.178704 with a probability of 0.2139 < 0.05, statistically H1 is rejected and H0 is accepted, so the appropriate model to use is the common effect model.

Lagrange multiplier test

Table 1.3 Lagrange multiplier test results

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effect

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided

(all others) alternatives

	Test Hypothesis		
	Cross-section	time	Both

Breusch-Pagan	0.926611 (0.3357)	0.889249 (0.3457)	1.815860 (0.1778)
Honda	0.962606 (0.1679)	0.943000 (0.1728)	1.347467 (0.0889)
King-Wu	0.962606 (0.1679)	0.943000 (0.1728)	1.311515 (0.0948)
Standardized Honda	1.076249 (0.1409)	1.120410 (0.1313)	-1.691069 (0.9546)
Standardized King-Wu	1.076249 (0.1409)	1.120410 (0.1313)	-1.491695 (0.9321)
Gourieroux, et al.	--	--	1.815860 (0.1897)

Source: **OutputViews12, 2023**

The output results above show the Breush-Pagan (BP) probability value of $0.1778 > 0.05$, so H_0 is accepted, in other words the suitable model is the common effect model.

C. Classic assumption test

Normality test

Table 1.4 Normality test results

-10000 -5000 0 5000 10000 15000

Sumber: **OutputViews12, 2023**

Based on the results of the normality test above, it is known that the probability is more than the predetermined significance level ($0.170270 > 0.05$), it can be concluded that the residuals are normally distributed.

Multicollinearity test

Table 1.5 Multicollinearity test results

	pp	IT
pp	1.000000	0.002907
IT	0.002907	1.000000

Sumber: **OutputViews12, 2023**

Multicollinearity test results. These results indicate that the independent variables in this study have a correlation < 0.90 so that it can be concluded that there are no symptoms of multicollinearity.

DISCUSSION

Panel data regression analysis

Table 1.6 Regression results of the common effect model panel data

Dependent Variable: Change in Profit

Method: Panel Least Squares

Date: 04/04/23 Time: 22:22

Sample: 2017 2021

Period included: 5

Cross-sections included: 11

Total panel (balanced) observations: 55

Variables	coefficient	std. Error	t- Statistics	Prob.
Constant	56.03586	23.13080	2.422564	0.0189
Sales Growth	0.027261	0.030487	1.894187	0.0357

Inflation Rate	-58.41153	60.50088	-0.965466	0.3388
Root MSE	134.8148	R-squared		0.032138
Mean dependent var	41.08036	Adjusted R-squared		-
				0.005087
SD dependent var	138.2979	SE of regression		138.6492
Akaike info criterion	12.75477	Sum squared residue		999626.8
Schwarz criterion	12.86426	Likelihood		-
		logs		347.7562
Hannan-Quinn criter.	12.79711	F-statistics		0.863345
Durbin-Watson stat	1.741111	Prob(F-statistic)		0.427706

Sumber: Output Eviews 12, 2023

From the table above, the panel regression equation is obtained as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it}$$

$$Y_{it} = 56.03586 + 0.027261 - 58.41153$$

The panel data regression equation above can be interpreted as follows:

- The constant (α) is 56.03586, meaning that if the sales growth and inflation rate are 0, then the profit change is 56.03586.
- The regression coefficient for sales growth is 0.027261, meaning that if the other independent variables have a fixed value and sales growth has increased by 1%, the profit change will have increased by 0.027261. The coefficient is positive, meaning that there is a positive relationship between sales growth and profit changes, the higher sales growth, the higher profit changes.
- The regression coefficient for the inflation rate is -58.41153, meaning that if the other independent variables have a fixed value and the inflation rate increases by 1%, the profit change will decrease by -58.41153. The coefficient is negative, meaning that there is a negative relationship between the inflation rate and profit changes, the higher the inflation rate, the lower the profit changes.

Feasibility test of panel data regression model (t-test)

Table 1.7 Test Results (t) Based on the Common Effect Model Estimation

Dependent Variable:

PL

Method: Panel Least Squares

Date: 04/04/23 Time: 22:22

Sample: 2017 2021

Period included: 5

Cross-sections included: 11

Total panel (balanced) observations: 55

Variables	coefficient	std. Error	t- Statistics	Prob.
Constant	56.03586	23.13080	2.422564	0.0189
Sales Growth	0.027261	0.030487	1.894187	0.0357
Inflation Rate	-58.41153	60.50088	-0.965466	0.3388
Root MSE	134.8148	R-squared		0.132138
Mean dependent var	41.08036	Adjusted R-squared		-0.005087
SD dependent var	138.2979	SE of regression		138.6492
Akaike info criterion	12.75477	Sum squared residue		999626.8
Schwarz criterion	12.86426	Likelihood		-347.7562
		logs		

Hannan-Quinn criter.	12.79711	F-statistics	0.863345
Durbin-Watson stat	1.741111	Prob(F-statistic)	0.427706

It can be seen that the t-count value with the value $df2 = nk-1 = 55-2-1 = 53$, then the t-table is 1.67412. based on the value of the t-table, it can be done to test the hypothesis in this study, namely:

1.Effect of sales growth on changes in profits

The t-count value of the sales growth variable is 1.894187 and the t-table value is 1.67412, so $(1.894187 > 1.67412)$ the probability value is $(0.0357 < 0.05)$. This means that H1 is accepted, H0 is rejected. This means that sales growth has a significant effect on changes in profits.

2.The effect of the inflation rate on changes in profits

Variable tcount value the inflation rate is -0.965466 and the ttable value is 1.67412, so $(-0.965466 < 1.67412)$ the probability value is $(0.3388 > 0.05)$. This means that H1 is accepted and H0 is rejected. This means that the inflation rate has a negative and insignificant effect on changes in earnings.

The coefficient of determination

Table 1.8 Test results for the coefficient of determination based on the estimation of the common effect model

Dependent Variable: PL

Method: Panel Least Squares

Date: 04/04/23 Time: 22:22

Sample: 2017

2021

Period included: 5

Cross-sections included: 11

Total panel (balanced) observations: 55

Variables	coefficient	std. Error	t- Statistics	Prob.
Constant	56.03586	23.13080	2.422564	0.0189
Sales Growth	0.027261	0.030487	1.894187	0.0357
Inflation Rate	-	60.50088	-	0.3388
	58.41153		0.965466	
Root MSE	134.8148	R-squared		0.132138
Mean dependent var	41.08036	Adjusted R-squared		-0.005087
SD dependent var	138.2979	SE of regression		138.6492
Akaike info criterion	12.75477	Sum squared residue		999626.8
Schwarz criterion	12.86426	Likelihood logs		-347.7562
Hannan-Quinn criter.	12.79711	F-statistics		0.863345
Durbin-Watson stat	1.741111	Prob(F- statistic)		0.427706

Source: **OutputViews12, 2023**

From the estimation results, the R-Square value is 0.132138, meaning that the independent variables are able to explain the dependent variable by 13% while the remaining 87% is explained by variables outside of the study.

Interpretation of Research Results

a. The effect of sales growth on profit changes in consumer goods companies listed on the Indonesian stock exchange

Based on the results of testing the first hypothesis, it shows that the sales growth variable has a significant influence on changes in profits, with the results of test (t) based on the estimation of the common effect model where the tcount value is 1.894187 ttable 1.67412, then $(1.894187 > 1.67412)$ the probability value is $(0.0357 < 0.05)$ then the first hypothesis is accepted. Based on the results of the study indicate that, the higher the sales growth, the more changes in profits will increase. If the sales growth is high, the change in profit will also be high. Profitability in this case shows the company's ability to generate net profit on certain sales. If profitability is high, the change in profit will also be high.

b. The effect of the inflation rate on changes in profits in consumer goods companies listed on the Indonesian stock exchange

Based on the results of testing the second hypothesis, it shows that the inflation rate variable has a negative and insignificant effect on changes in earnings, with the results of test (t) based on the estimation of the common effect model where the tcount value is -0.965466 ttable 0.3388, then $(-0.965466 < 1.67412)$ the probability value is $(0.3388 < 0.05)$ then the first hypothesis is accepted. The results showed that the coefficient is negative, meaning that there is a negative relationship between the inflation rate and changes in earnings, the higher the inflation rate, the lower the profit changes. The lower the inflation rate, the increase in profit changes

CONCLUSION

Based on the existing problem formulation and the results of data analysis and the discussion that has been raised in the previous chapter, the conclusions that can be drawn are:

1. Partially, sales growth has had a significant effect on profit changes in consumer goods companies listed on the Indonesian stock exchange for the 2017-2021 period.
2. Partially the inflation rate has a negative and insignificant effect on changes in profits at consumer goods companies listed on the Indonesian stock exchange for the 2017-2021 period.

SUGGESTION

Based on the conclusions that have been obtained in this study, suggestions are proposed as a complement to the research results that can be given, namely for further researchers it is hoped that they can expand the scope of research with customers spread across various regions, both on a regional and national scale. Future researchers can also change the object of research, with other companies or fields and researchers need to consider using other variables so that they can enrich the information obtained to increase profit changes.

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