

## Analysis of The Influence Of Firm Size, Liquidity, Leverage And Profitability On Firm Value Consumer Goods Industry On Stock Exchange Indonesia (IDX)

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### ABSTRACT

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#### Keywords:

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This study aims to determine and analyze the effect of firm size, liquidity, leverage and profitability on firm value, either simultaneously or partially in consumer goods industry companies on the Indonesia Stock Exchange (IDX) in the period 2014 to 2017. The population in this study is industrial goods companies. consumption on the Indonesia Stock Exchange (IDX) during the 2014-2017 period, amounting to 45 companies. Sample selection using purposive sampling technique. The number of samples obtained as many as 25 companies. The data analysis method used is panel data regression analysis with the Eviews 8 application. Simultaneously, firm size, liquidity, leverage and profitability have a significant effect on firm value. Partially, firm size, leverage and profitability have a significant effect on firm value, while liquidity has no effect on firm value.

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## 1. Introduction

The capital market is a means for companies to obtain additional funds. The capital market plays a major role in the country's economy because it carries out two functions at once, namely economics and finance. The capital market is said to have an economic function because the market provides facilities that bring together two interests, namely those who have excess funds (investors) and those who need funds (issuers). The capital market is said to have a financial function because it provides the possibility and opportunity to get a return for the owner of the funds in accordance with the characteristics of the chosen investment [1]. One way to measure the success of a manager can be seen from the value of the company. The manager is paying attention to the price movement of a stock that occurs on the stock exchange because the stock movement is very interesting for investors to do an analysis.

Company value is the company's performance as reflected by the stock price formed by supply and demand in the capital market which reflects the public's assessment of the company's performance [2]. The measuring instrument for firm value in this study is Price to Book Value. Price to Book Value is an investor's perception of the company's level of success which is closely related to stock prices. The phenomenon that occurs in the consumer goods industry where the share price of Unilever Tbk is very high, which is estimated at Rp. 34,250 per share and consensus estimates that the average price of Unilever Tbk's shares is reflected in the ratio of price to book value or price to book value which reaches 40 times, as follows: Indofood CBP Sukses Makmur Tbk has a price to book value of 4 times and the Sido Muncul Herbal and Pharmaceutical Industry Tbk has a price to book value of 4.7 times because Unilever Tbk has built a new factory with a capacity of 143,000 tons per year, boosting production capacity, especially ice cream production. Wall's expanded to six factories [3].

The purpose of this study is to determine and analyze the effect of firm size, liquidity, leverage and profitability on firm value either simultaneously or partially in the consumer goods industry on the Indonesia Stock Exchange for the period 2014-2017. This research is expected to provide benefits for companies, investors and further researchers.

**2. Method**

In this study, the analytical technique used is panel data regression. Data panel is a combination of Time Series and Cross Section data allows capturing characteristics between individuals and time. In research This researcher uses the Eviews 8 application. The data collection used in this study is to collect data in the form of annual financial reports by downloading from the Indonesia Stock Exchange website, namely [www.idx.co.id](http://www.idx.co.id) via the internet.

The criteria for sampling in this study are as follows:

**Table 1. Sampling Criteria**

Criteria	
<b>Population:</b>	
Number of consumer goods industry companies on the Indonesia Stock Exchange (IDX)	45
Sample Selection Criteria:	
1. The consumer goods industry is not consistently listed on the Indonesia Stock Exchange (IDX) for the period 2014-2017.	(9)
2. The consumer goods industry that did not consistently generate profits during the 2014-2017 period.	(10)
3. The consumer goods industry that carried out mergers and acquisitions during the 2014-2017 period.	(1)
Number of sample companies	25
<b>Number of observations 25 X 4</b>	<b>100</b>

**3. Results and Discussion**

**Model Fit Test**

**Table 2. Chow test**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	10.910566	(24,71)	0.0000
Cross-section Chi-square	154.502286	24	0.0000

Source: Eviews 8

Choose the best model between the common effect model and the fixed effect model. Based on table 2, the probability value is 0.0000. Because 0.0000 is less than 0.05, the model chosen from the Chow test is the fixed effect model.

**Table 3. Hausman test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	23.740677	4	0.0001

Selection of the best model between the fixed effect model and the random effect model. Table 3 shows that the probability value is 0.0001. Because 0.0001 is less than 0.05, the model chosen from the Hausman test is a fixed effect model.

**Classical Assumption Test**

There are several problems that occur in the classical assumption test, namely the residual normality test and the heteroscedasticity test. To overcome the problem of classical assumptions, the corrective step that can be taken is to perform outlier data, with the studentized residual value > 2.5 or < -2.5. After 5 data outliers, the number of sample data studied became 95 of the 100 previous data and transformed the data into Natural Logarithms (Ln) on the Firm Value variable. so that the following results are obtained:

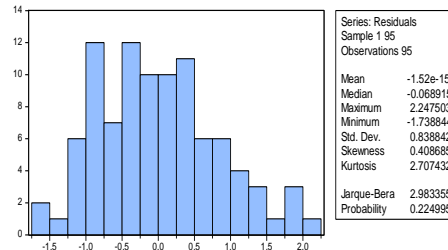
**Multicollinearity Test**

**Table 4. Multicollinearity Test**

	UP	CR	DER	ROE
UP	1.000000	-0.041772	0.084607	0.208156
CR	-0.041772	1.000000	-0.693041	-0.250068
DER	0.084607	-0.693041	1.000000	0.664610
ROE	0.208156	-0.250068	0.664610	1.000000

Based on table 4, that there is no independent variable relationship with a value of more than 0.8. The data is said to be identified as multicollinearity if the correlation coefficient between the independent variables is more than 0.8. So that in this study there is no multicollinearity.

**Normality test**



**Figure 2.** Normality Test

Based on Figure 2, it can be seen that the Jarque-Bera probability value of 0.224995 is greater than 0.05, thus it can be concluded that the variable data in this study are normally distributed.

**Heteroscedasticity Test**

**Table 5.** Heteroscedasticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.194225	0.926369	1.289146	0.2007
UKURANPERUSAHAAN	-0.007825	0.031231	-0.250540	0.8027
CR	-0.064126	0.037521	-1.709058	0.0909
DER	-0.197746	0.162060	-1.220206	0.2256
ROE	0.190637	0.240142	0.793850	0.4294
R-squared	0.032020	Mean dependent var		0.677955
Adjusted R-squared	-0.011001	S.D. dependent var		0.489022
S.E. of regression	0.491705	Akaike info criterion		1.469319
Sum squared resid	21.75961	Schwarz criterion		1.603733
Log likelihood	-64.79264	Hannan-Quinn criter.		1.523632
F-statistic	0.744285	Durbin-Watson stat		1.029044
Prob(F-statistic)	0.564333			

Source: Eviews 8

Based on table 5, it can be seen that the data of this study did not occur heteroscedasticity. It can be seen that the probability value of company size variables, CR, DER and ROE is greater than 0.05.

**Autocorrelation Test**

**Table 6.** Autocorrelation Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.910411	1.240089	2.346938	0.0212
UKURANPERUSAHAAN	-0.066125	0.043674	-1.514068	0.1336
CR	0.021761	0.042271	0.514792	0.6080
DER	-0.052265	0.206109	-0.253581	0.8004
ROE	-0.072268	0.293745	-0.246021	0.8062
AR(1)	0.678185	0.082134	8.257028	0.0000
R-squared	0.487531	Mean dependent var		1.044985
Adjusted R-squared	0.458414	S.D. dependent var		0.899804
S.E. of regression	0.662189	Akaike info criterion		2.075170
Sum squared resid	38.58749	Schwarz criterion		2.237508
Log likelihood	-91.53298	Hannan-Quinn criter.		2.140743
F-statistic	16.74355	Durbin-Watson stat		2.024441
Prob(F-statistic)	0.000000			

Source: Eviews 8

By looking at the criteria in table 6 on the value of  $dU < d < 4-dU$  or  $1.7546 < 2.024441 < 2.4205$ , the Durbin-Watson results do not show autocorrelation.

**Panel Data Regression Analysis**

Based on the tests that have been carried out based on the Chow test and the Hausman test, the appropriate panel data regression model used in this study is the fixed effect model. In the following, the fixed effect model test is presented as follows.

**Table 7.** Test Results for Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-95.70517	37.74685	-2.535448	0.0134
UKURAN PERUSAHAAN	3.243705	1.298495	2.498050	0.0148
CR	0.278749	0.398387	0.699693	0.4864
DER	6.274426	1.372628	4.571104	0.0000
ROE	15.70444	3.552351	4.420857	0.0000
Cross-section fixed (dummy variables)				
R-squared	0.973752	Mean dependent var	7.210854	
Adjusted R-squared	0.963401	S.D. dependent var	13.66165	
S.E. of regression	2.613587	Akaike info criterion	4.996834	
Sum squared resid	484.9896	Schwarz criterion	5.752334	
Log likelihood	-220.8417	Hannan-Quinn criter.	5.302599	
F-statistic	94.07140	Durbin-Watson stat	2.141659	
Prob(F-statistic)	0.000000			

Source: Eviews 8

Based on table 7, a panel data regression model can be formulated which explains the effect of company size, liquidity, leverage and profitability on the value of consumer goods industry companies on the Indonesia Stock Exchange for the 2014-2017 period, namely:  $PBV = -95,70517 + 3,243705 \text{ firm size} + 0,278749 \text{ CR} + 6,274426 \text{ DER} + 15,70444 \text{ ROE}$  (1)

**3.2 Hypothesis test****Simultaneous Test (F Test)**

The results of the F test in this study are shown in table 8 above, the Fcount value in this study has a coefficient value of 94.07140 with a prob (F-statistic) of 0.000000 < 0.05. Because the probability is much smaller than 0.05, it can be concluded that the regression coefficients of firm size, liquidity, leverage and profitability variables simultaneously affect firm value so that  $H_0$  is rejected and  $H_a$  is accepted.

**Partial Test (t Test)**

The Effect of Firm Size on Firm Value. The probability value of 0.0148 is smaller than the alpha value of 0.05 and the  $t_{\text{count}} = 2.498050 > t_{\text{table}} = 1.98525$ . So it can be concluded that partially the firm size variable has a significant effect on firm value so that  $H_a$  is accepted and  $H_0$  is rejected. Effect of Liquidity (CR) on Firm Value. The probability value of 0.4864 is greater than the alpha value of 0.05 and the value of  $t_{\text{count}} = 0.699693 < t_{\text{table}} = 1.98525$ . So it can be concluded that partially the liquidity variable has no significant effect on firm value so that  $H_a$  is rejected and  $H_0$  is accepted.

Effect of Leverage (DER) on Firm Value. The probability value of 0.0000 is smaller than the alpha value of 0.05 and the  $t_{\text{count}} = 4.571104 > t_{\text{table}} = 1.98525$ . So it can be concluded that partially leverage has a significant effect on firm value so that  $H_a$  is accepted and  $H_0$  is rejected.

The Effect of Profitability (ROE) on Firm Value. The probability value of 0.0000 is smaller than the alpha value of 0.05 and the value of  $t_{\text{count}} = 4.420857 > t_{\text{table}} = 1.98525$ . So it can be concluded that partially profitability has a significant effect on firm value so that  $H_a$  is accepted and  $H_0$  is rejected.

**Coefficient of Determination (R<sup>2</sup>)**

Based on the results of the analysis presented in table 7, it is known that the value of the coefficient of determination for the regression model of firm size, liquidity, leverage and profitability to firm value is 0.963401 or 96.3401%.

#### 4. Conclusion

From the results of research and hypothesis testing that have been carried out, several conclusions can be drawn: Simultaneously, the variables of firm size, liquidity, leverage and profitability have a significant effect on the value of consumer goods industry companies on the Indonesia Stock Exchange (IDX) for the 2014-2017 period. Partially, the variables of firm size, leverage and profitability have a significant positive effect on the value of consumer goods industry companies listed on the Indonesia Stock Exchange for the period 2014-2017. Meanwhile, liquidity has no significant effect on the value of consumer goods industry companies listed on the Indonesia Stock Exchange for the period 2014-2017. The value of Adjusted R Square is 0.963401 or 96.3401%, which means that the variables of firm size, liquidity, leverage and profitability are able to explain the firm value of 96.3401%.

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