

The Impact of Investment Opportunity Asset, Return on Assets, and Sales Growth on Dividend Policy: Empirical Analysis of Manufacturing Companies Listed in the Indonesian Sharia Stock Index (ISSI) from 2015-2017

Andini Nurwulandari

Universitas Nasional Jakarta, Indonesia

E-mail: andinmanajemen@gmail.com

Abstract

The consumer goods industry sector has good prospects and has growth opportunities, but not all companies that enter the consumer goods industry share dividends every year. This research is designed to determine the impact of Company Value, Investment Opportunity Collection, Return on Assets, and Sales Growth regarding the dividend strategies of production firms that are publicly traded ISSI from 2015 to 2017. Purposive sampling was used to collect samples and panel data analysis was used to analyze cross-sections of 15 companies and time series data from 2015 to 2017. This study employs a quantitative research design, employing a panel data regression model and Eview 9 as the data processing tool, and validation of the linear regression panel data using the trial Classical Assumption (Multicollinearity, Heteroscedasticity, and Autocorrelation) and Test of Model Feasibility (Adjusted R-Square, and F Test). The Investment Opportunity Set had a negative but negligible impact on the results. In comparison, the variable Return on Assets has a significant beneficial effect. Sales growth has a detrimental but marginal impact on dividend policy. These findings demonstrate that if the company places a greater emphasis on revenue growth, funds would increase even more, compelling management to pay low or no dividends.

Keywords: Investment Opportunity Set, Return On Asset, Sales Growth, Dividend.

INTRODUCTION

According to Regulation No. 8 of 1995 on the Stock Market, the Indonesian financial market, plays a critical role in the country's growth (Moore, Bell & Rasheed, 2012). One of the roles of the capital market is as a source of external financing for companies. The company obtains funds from an Initial Public Offering (IOP) or a public offering for the first time before the shares are listed on the stock exchange or seasoned new issues, or the sale of shares to the public after the company has gone public (Cecchini, Jackson & Liu, 2012). The dividend policy discloses details about a company's results (Noer & Nurwulandari, 2017). As a result, each business must establish a unique dividend policy, as the dividend policy company can lack sufficient funds to finance future development (Abdulsaleh & Worthington, 2013). In the other hand, the company's shares become unattractive. As a result, the business must consider the amount of profit that would be retained to grow the business (Christensen, Bartman & Bever, 2016).

If a company whose share ownership is owned by the wider community and the general public, then dividend policy significantly influences investors and companies that will pay dividends. In investing capital, investors want the level of investor retrieval (return) in the form of profit distributed in the form of prizes given by the company as they have invested in the company and income to increase capital (Gazizulina, 2017). Dividends are considered burdensome for some companies because the company must always provide a relatively endless amount of cash to pay dividends in the future (Karpavičius, 2014). Companies that do not have

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funds must continue to issue tips for their investment needs, so they need additional capital, namely by publishing new shares or making loans to other parties (Huang, 2018).

The investment incentive set offers a more complete picture of how the primary target of the firm's valuation is affected by potential expenditures (Arjaliès & Mundy, 2013). The Investment Opportunity Set (IOS) is a collection of current assets and potential investment options with a positive net present value (Eka, 2018). Investment strategy refers to the process by which funds from outside the organization are allocated to different types of investment (Anderson, Duru & Reeb, 2012). Financial management decides to use funds obtained by the company either from the bank or from the capital market, or from other parties to be invested in fixed assets or current assets (Bell & Rasheed, 2012). Investment is an act of removing funds at present that is expected to obtain cash inflows at future times during the project's life (Boomsma, Meade & Fleten, 2012).

Another measure used to measure company performance besides the investment opportunity set is the profitability ratio (Ardestani, Rasid & Mehri, 2013). The profitability ratio is used to evaluate management effectiveness by comparing the returns on investments to the company's ability to produce income that will be used to distribute dividends. The most often used profitability ratios are ROA and ROE. Profits that are distributable to shareholders are those remaining after the company has met all of its permanent commitments, including interest and tax expenses (Vranceanu, 2014). Since dividends are deducted from a company's net profit, these earnings the greater the willingness of the company to pay dividend (Iskandar, 2017).

The company's performance can be seen from the display of increased financial statements to change the condition and financial position (Ameer & Othman, 2012). The corporation's stock price reflects the value of a company, and if the company achieves good performance, it will be more attractive to investors (Gilson & Gordon, 2013). The achievements of the company can be seen in the published financial reports (Chaney & Nazareno, 2014).

Financial reports are intended to assist consumers in determining the relationship variables contained in financial statements (Asare & Wright, 2012). The main objective of investors to invest in companies that go public is to get a return on investment (Nanda & Rhodes, 2013). Recovery can be in the form of income from the difference in the selling price of the shares against capital gains or dividends (Yagan, 2015). Dividends paid to shareholders are determined by each company's policies; a dividend policy is a policy that involves two interested parties, all of whom oppose one another, namely the interests of shareholders with dividends and the interests of companies with retained earnings (Al-Nawaiseh, 2013).

RESEARCH METHOD

This research uses quantitative methods. The data collected is secondary data with documentation techniques from financial reports, financial analysis, and calculation analysis sourced from the official website of ISSI. The population in this study are manufacturing companies listed on the Indonesian Sharia Stock Index (ISSI) which consists of 98 companies or those listed on the Sharia Securities List (DES) as determined by the Financial Services Authority (OJK).

The method of analysis uses a panel data regression model with Eview 9 as a data processing tool. The Test of the Classical Assumption (Multicollinearity, Heteroscedasticity, and

Autocorrelation) and the Test of Model Feasibility are used to evaluate the panel data regression model (Adjusted R-Square, and F Test).

RESULTS AND DISCUSSION

This study aims to determine the effect of independent variables on the dependent variable, with the independent variables studied include: Investment Opportunity Set, ROA and Sales Growth on dividend policy. In this study, the results of statistical processing regarding Company Value as measured by: Investment Opportunity Set, ROA and Sales Growth are described with the formulations that have been described in the previous chapter. Data processing is carried out on data that is still in the form of documentation in the form of financial statements using a computer with Microsoft Excel to obtain data on research variables, which is then analyzed using the Eviews 9 program.

The research was conducted on companies engaged in manufacturing with research variable data that has been processed from annual reports and company financial reports with the Microsoft Excel program, which includes ROA, IOS, and Sales Growth are as follows:

Table 1 ROA, IOS, and Company Sales Growth

No.	Stock Code	Year	IOS	Return on Asset	Sales Growth
1	ADHI	2015	1.09	4.3	0.22
	ADHI	2016	1.43	3.2	-0.08
	ADHI	2017	1.16	2.87	0.14
2	APLN	2015	0.96	4.83	0.05
	APLN	2016	0.83	4.25	0.07
	APLN	2017	0.81	4.65	0.13
3	ASRI	2015	1.32	6.09	0.14
	ASRI	2016	1.37	6.49	0.4
	ASRI	2017	1.02	3.18	-0.33
4	BCIP	2015	1.97	7.48	0.71
	BCIP	2016	2.45	5.09	0.3
	BCIP	2017	2.34	0.72	-0.3
5	BEST	2015	1.56	23.23	0.38
	BEST	2016	2.16	10.8	-0.37
	BEST	2017	0.97	4.58	-0.22
6	BKSL	2015	0.83	5.92	0.55
	BKSL	2016	0.8	0.55	-0.26
	BKSL	2017	0.72	0.46	-0.22
7	BSDE	2015	1.51	11.93	0.55
	BSDE	2016	1.62	13.68	-0.03
	BSDE	2017	1.45	5.84	0.12
8	CTRA	2015	1.09	4.96	0.53
	CTRA	2016	1.33	5.79	0.25
	CTRA	2017	1.44	4.79	0.19
9	DILD	2015	0.88	4.4	0.18
	DILD	2016	1.26	4.87	0.22
	DILD	2017	1.06	3.8	0.3

10	KIJA	2015	0.96	1.32	0.85
	KIJA	2016	1.15	4.81	0.03
	KIJA	2017	1.06	3.58	0.13
11	LPCK	2015	1.42	15.42	0.32
	LPCK	2016	2.07	19.69	0.35
	LPCK	2017	1.27	16.73	0.14
12	LPKR	2015	1.23	3.82	0.09
	LPKR	2016	1.17	6.85	0.75
	LPKR	2017	1.13	1.4	-0.26
13	MDLN	2015	1.03	25.51	0.75
	MDLN	2016	1.12	6.91	0.55
	MDLN	2017	0.99	6.9	0.05
14	PWON	2015	1.97	12.28	0.38
	PWON	2016	1.99	1.6	0.28
	PWON	2017	1.78	6.82	0.18
15	SMRA	2015	0.93	8.08	0.19
	SMRA	2016	0.85	9.08	0.4
	SMRA	2017	0.78	4.57	0.06

Source: Processed Data

The data above includes the research variable Return on Asset, Investment Opportunity Set, and the Company's Sales Growth for three periods, namely 2015-2017. The data is tested through the Eviews 9 program with the panel data method. By using panel data, the total number of observation units studied is 225 observation units. With cross-section data of 45 companies and time-series data for the 2015-2017 period.

Table 2 Descriptive Statistical Analysis

	PBV	ROA	Growth
Mean	1.966000	7.205333	0.191443
Median	1.650000	5.090000	0.190000
Maximum	4.880000	25.42000	0.960000
Minimum	0.350000	0.460000	-0.370000
Std. Dev.	1.133563	5.656772	0.288809
Skewness	0.897786	1.494663	0.420891
Kurtosis	2.912588	4.814763	3.108226
Sum	88.02000	324.2400	8.610000
Sum Sq. Dev.	56.43868	1407.959	3.667520
Observations	45	45	45

Source: Secondary Data Processing with Eviews 9

Investment Opportunity Asset

In Table 3, it can be seen the results of the descriptive analysis of the dependent variable in the Profitability study in the IOS column. The mean value of the Investment Opportunity Set independent variable is 1,275, with a median value of 1,160 and the highest value of 2,450 which comes from Bumi Citra Permai Tbk.

ROA

The mean for the ROA value in table 3 shows a value of 7,205, which means that the company that is the object of research has an average ROA of 7.2 times compared to the assets

they own, with a median value of 5.090, and the highest value of 25,420 produced by the Modernland Realty Ltd company. Tbk in 2017.

Sales Growth

The mean for sales growth in table 3 shows a value of 0.191, which means that the company has an average sales growth of 19 percent per year, with a median value of 0.190 and the largest value of 0.960 or 96% owned by the Jababeka Tbk Industrial Estate company in 2017.

Classic Assumption Test

Classical assumption testing is carried out to meet the regression estimation that is BLUE (Best Linear Unavailable Estimate). The classic assumption test in this study is the heteroscedasticity test, multicollinearity test, and autocorrelation test. The following shows the results of the classic assumption test in this study.

Heteroscedasticity Test

The heteroscedasticity assessment is used to decide whether or not variations of the classical heteroscedasticity assumption are present, i.e. the inequality of the residual variants for all regression model observations. In this study, the heteroscedasticity test consisting of the test of Park and the test of White.

Table 3 White Test

White Heteroskedasticity Test				
F-statistic	1.175717	F(14.30)		0.4477
Obs*R-squared	16.03818	Chi-Square(14)		0.4236
Scaled explained SS	102.7852	Chi-Square(14)		0.0000

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.77965	18.63296	0.791435	0.5508
IOA^2	18.54965	6.992823	2.513187	0.0286
IOS*ROA	-0.674729	0.850804	-0.790484	0.4365
IOS*GROWTH	2.018420	12.63830	0.159725	0.8760
IOA	-43.66823	29.08026	-1.654316	0.1407
ROA^2	-0.045727	0.092894	-0.531447	0.6810
ROA*GROWTH	-0.547726	1.486985	-0.466382	0.8184
ROA	2.074342	2.299541	0.899080	0.3864
GROWTH^2	-0.288503	14.64206	-0.018789	0.9855
GROWTH	10.78449	24.94675	0.550812	0.6563

Source: Secondary Data Processing with Eviews 9

In table 3, you can see the results of the heteroscedasticity test using the White Test. The Obs * R-squared value in the products above is 16.03918, and the probability value is 0.3216 (more excellent than the value of $\alpha = 5\%$), so it is concluded that the data is not heteroscedastic. In the following table, data presented on the effects of the heteroskedasticity test using the Park test, which are as follows:

Table 4 Park Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.7843438	0.916048	0.984679	0.3366
IOS	-0.905687	0.538969	-1.483776	0.1531
ROA	0.050322	0.049187	0.837719	0.4098
DER	0.387532	0.248643	1.530516	0.1373
GROWTH	-0.317798	0.861328	-0.384564	0.7120

Source: Secondary Data Processing with Eviews 9

$$\text{Res2} = 0.794 - 0.807 \text{IOS} + 0.050 \text{ROA} + 0.387 \text{DER} - 0.328 \text{GROWTH}$$

$$t \quad (0.98) \quad (-1.48) \quad (0.84) \quad (1.42) \quad (-0.47)$$

$$\text{Prob.} \quad (0.3366) \quad (0.1432) \quad (0.4087) \quad (0.1373) \quad (0.7200)$$

The parameter coefficient for each independent variable is insignificant.

Test for Multicollinearity

The aim of the multi-linearity test is to test if a correlation (strong relation) has been found between independent variables and independent variables within the regression model. The following table presents the conclusions of the report's multicollinearity evaluation:

Table 5 Multicollinearity Test

	IOA	ROA	Sales Growth
IOS	2.000000	0.328765	0.023793
ROA	0.418764	2.000000	0.466247
DER	-0.076205	-0.432868	-0.120767
Sales Growth	0.023793	0.466247	1.000000

Source: Eviews Secondary Data Processing

Multicollinearity occurs when the correlation between variables is more significant than 0.80. Based on the data that has been obtained by analyzing the data with the E-views program. Then there is no linear relationship between the research variables.

Model Feasibility Test

F-test

The F test is known as the simultaneous test or the Anova/model test, which is a test to determine how the variable depends together on the independent variables. Or to test whether our regression model is good/significant or not good/non-significant. The value of the F test can be seen in the results of the regression equation that have been analyzed and determined through the previous model selection test, which in this study, is the Random Effect Model. Table 6 below shows the effects of the F-test:

Table 6 F-test

F-statistic	15.18992
Prob(F-statistic)	0.000000

Source: Eviews secondary data processing

The worth of the prob. F has $0.0000 < \alpha$ value of 0.05. F is important. The analysed independent variables then affect the dependent variable of the analysis.

R-Square Evaluation with Adjustments

To find out how much the ability of the independent variables in the study to be able to explain variations in the dependent variable. The value of the Adjusted R-Square test can be seen in the results of the regression equation that have been analyzed and determined through the previous model selection test, which in this study, is the Random Effect Model. Table 7 below shows the adjusted R-Square results:

Table 7 Adjusted R-squared

Adjusted R-squared	0.564152
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Source: Eviews Secondary Data Processing

The Adjusted R-squared value shows a value of 0.574152 or 57.41%. This indicates that the independent variable understudy has a proportion of influence on the dependent variable of 57.41%, while other variables explain the remaining 42.59%.

Table 8. Summary of results of Regression Analysis

	Unnormalized coefficients		Correlations	t	Sig.
	B	Std. Error	Beta		
(Constant)	14.206	11.468		1.253	0.265
IOS	-0.003	0.004	-0.070	-0.454	0.759
ROA	0.368	0.076	0.658	4.875	0.000
SG	-0.213	0.159	-0.176	-1.432	0.172
R²	= 0.356				
F_{hitung}	= 9.750				
Sig F_{hitung}	= 0.000				

Source: Secondary data processed.

$\beta_0 = 13.105$. means the investment opportunity set (X1). Return on Assets (X2) and sales growth (X3) are equal to zero. then the dividend payout ratio will increase by 14,105%. $\beta_1 = - 0.001$. means that every 1 percent increase in the investment opportunity set (X1). then the dividend payout ratio will decrease by 0.001%, assuming the other variables are constant. $\beta_2 = 0.369$. This means that every 1 percent increase in total Return on Assets (X2). then the dividend payout ratio will increase by 0.359%, assuming the other variables are constant. $\beta_3 = - 0.213$. it means that every 1 percent increase in sales growth (X3). Then the dividend payout ratio will decrease by 0.213 percent, assuming the other variables are constant.

As showed by the Independent Variable Coefficient, the effects of the multiple lineary regression equation indicate the direction of each variable regression coefficient suggests a unidirectional effect on the payout ratio of dividends (Tekin, B. & Hatipođl, 2017). At the same time, the negative factor decreases the distribution ratio of the dividend.

If the company is in good health, the management will prioritize new acquisitions over paying large dividends. Funds that should be used for cash dividend payments to shareholders would be used to acquire successful assets. Indeed, to address the issue of underinvestment. In either case. Slow-growing companies typically pay higher dividends to offset overinvestment issues. Market to Book Value of Equity (MBVE) is a proxy for the Investment Opportunity Set (IOS) based on the price at which the company's growth is attributed to its capacity to acquire and retain resources (Rambe, 2018).

These findings indicate that investment opportunities, as measured by the company's ability to acquire and manage assets, have a small but important effect on the dividend policy of the company. ROA has a substantial impact strategy of the consumer goods business sector on the Indonesia Stock Exchange. This is consistent with the principle that returns on assets have a beneficial impact on dividend policy. Return on Assets is a metric that is used to determine a company's success in using its assets. A high asset turnover rate reflects the financial success of the company. The greater the company's asset turnover, the greater its capacity to pay dividends.

The statement states that the company may not pay high dividends because the company needs internal funds for company expansion and additional capital to finance company activities. The company tends to hold its profits instead of distributing tips to shareholders.

CONCLUSION

Based on the previous chapter's discussion. The Investment incentive package, it is concluded The dividend policy has a negative but marginal effect on the consumer goods industry sector as measured by the ISSI from 2015 to 2017. These findings demonstrate that when a company's financial position is solid, management may prioritize new acquisitions over paying large dividends. Dividends due to shareholders can be used to make investment purchases.

ROA has a major positive impact in dividend policy in the consumer goods business sector as measured by the ISSI from 2015 to 2017. These findings demonstrate that a high asset turnover rate is indicative of a company's financial success. The greater the company's asset turnover, the greater its capacity to pay dividends.

Meanwhile, for the 2015-2017 period, Sales Growth has a negative but marginal impact on the policy on dividends the consumer goods industry sector as measured by the ISSI. These results prove that if the company focuses more on sales growth, funds will be even higher, forcing management to pay low or no dividends.

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