Jurnal Keuangan dan Perbankan (KEBAN)
Vol.3 No.1 (Juli-Desember) 2023. Hal.39-50
ISSN-E 2808-6430

Fundamental Analysis Based on Earnings Per Share on Divident Payout Ratio to Determine the Prospects of Stock Investment in The Retail Sector

Mehilda Rosdaliva[1], Arfian Nur Juniyanto[2*]

[1]Sebelas Maret University
[2]Karangtaruna Sendang Tirto
***Email Keresponden Author, rosdalivamehilda@staff.uns.ac.id**

Abstract

This study aimed to obtain a more specific and comprehensive explanation of fundamental analysis based on the EPS to DPR ratio in order to determine the prospects for stock investment in retail sub-sector companies. It was expected that readers or investors would gain knowledge and comprehension from the results of this study in order to facilitate their ability to analyze stocks using fundamental analysis in the form of EPS ratio and DPR. The methods used in this study were literature study and observation. Moreover, the data analysis techniques used were in the form of quantitative descriptive analysis and simple linear regression analysis. Furthermore, the financial reports of the stock issuers of MIDI, AMRT, RALS, MYOR, ACES, and CSAP for the 2016–2021 data period were the secondary data sources in this study. The results of this study demonstrated a positive and significant relationship between the impact of variable X (EPS) and variable Y (DPR). Moreover, these results suggested that the EPS and DPR values are strongly associated with determining the future prospects for stock investment in the retail sector. In addition, as a result of the EPS value increase, the DPR value will also experience a significant increase, thereby increasing stock prices and indicating good prospects for growth in stock investment. Therefore, this study may be used as a suggestion for BNI Sekuritas Yogyakarta to encourage customers or investors to invest in stocks in the retail sector, especially MIDI, AMRT, RALS, MYOR, ACES, and CSAP stocks.

Key Words: ***EPS; DP; Stock Investment.***

I. INTRODUCTION

Companies nowadays are beginning to expand their businesses in order to improve performance so that they continue to grow rapidly and obtain maximum profits. Due to this, a company needs additional capital to develop, one of which is investing in stocks capital and going public. Additionally, a strategy for attracting public investment interest and offering the opportunity to receive dividends and capital gains is to issue stocks that are traded on the capital market.

The act of investing entails postponing increases in current consumption to be included in income assets during a future period (Jogiyanto, 2014). In other words, investing is an act of commitment to the amount of funds owned with the intention of gaining excess profits in the future. According to (Frank J. Fabozzi, 2011), the placement of funds from one or more other assets owned for a certain period of time with the intention of receiving a return on capital in the future was referred to as an investment. Moreover, public interest in investment activities is beginning to increase, particularly among millennials. The millennials, which comprise those born between 1982 and 2000, are characterized by their adaptable lifestyle, respect for

diversity, and reliance on technology (Strauss, William dan Howe, 1991). After the COVID-19 pandemic in 2020, many millennials have begun to become more receptive to investing and new investors in the capital market. This is validated by data from the KSEI of 2023, which revealed that as of January 2023, there were 58% more investors under the age of 30 and more than 22% investors between the ages of 31 and 40.

According to Law No. 8 of 1995, the capital market encompasses activities associated with public offerings and securities trading, public companies that handle issued securities, and other professions and institutions related to securities. On the capital market, companies (issuers) may obtain capital from investors or engage in company financing. In addition, over the last year, there has been a continued increase in the number of investors in the capital market.

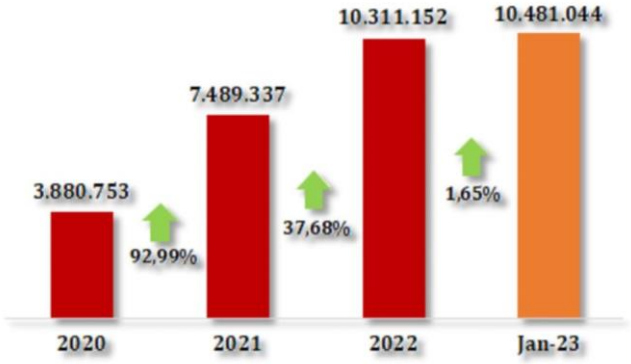

Figure 1. Graph of the Number of Capital Market Investors Year 2020 - January 2023
Source: KSEI, 2023

The number of capital market investors increased continuously from 3.8 million investors in the December 2022 period, increasing 170.07% to 10.48 million investors in the January 2023 period. Moreover, the number of investors in the capital markets increased by 33.28% in comparison with the January 2022 period, from 7.86 million investors to 10.48 million investors. This demonstrates an increase in public interest in and awareness of beginning capital market investments. One of the most prominent capital market instruments for the public is stock investment.

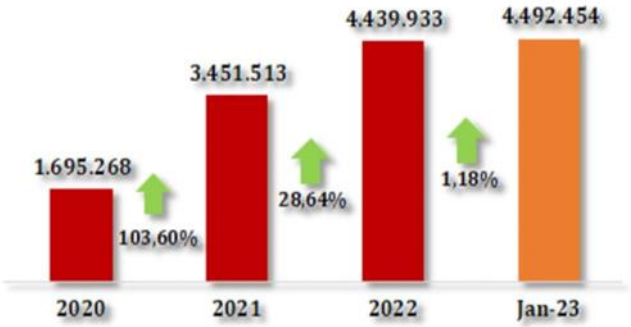

Figure 2. Increase in the Number of Stock Investors for the Period 2020–January 2023
Source: KSEI, 2023

In 2020, the number of stock investors was 1.69 million. In 2021, this number increased by 103.60%, and in 2022, with 4.43 million investors, it increased by 28.64%. Additionally, the number of stock investors from the 2020 period to the January 2023 period was calculated, and the data revealed that there has been an increase of 165% with the addition of 2.79 million stock investors.

Based on the background described previously, the authors conducted this study with the title **"Fundamental Analysis Based on Earnings Per Share on Dividend Payout Ratio to Determine the Prospects of Stock Investment in the Retail Sector".** The findings of the study may then be applied to make stock investment suggestions to investors who are interested in investing in the retail sector. In addition, this study demonstrated whether there was a relationship between the earnings per share (EPS) ratio and the dividend payout ratio (DPR).

II. LITERATURE REVIEW AND RESEARCH MODEL DEVELOPMENT

This study was focused on stock analysis using fundamental analysis. Moreover, one method for investors to assess a company's financial statements in determining future stock prospects is to pay attention to fundamental analysis indicators. According to (Corrado, 2002), fundamental analysis was defined as "the examination of a firm's accounting statement and other financial and economic information to assess the stock". Furthermore, financial performance is taken into account when conducting a fundamental analysis of the financial statements of a company. In the context of stock investment, earnings per share (EPS) and dividend payout ratio (DPR) are important metrics in fundamental analysis.

The metric known as earnings per share (EPS) compares a company's net profit to the number of outstanding shares on the capital markets. According to (Tandelilin, 2010). EPS is computed by dividing the company's net profit for a year by the average number of outstanding shares, in which the net profit is reduced by the number of preferred shares calculated for that year. Moreover, based on (Dr. Nagendra S, Dr. Satish Kumar, 2018), EPS is a frequently used metric of profitability and a very excellent indicator of an organization's profitability. The significance of this ratio derives from the fact that the higher the profit per share, the greater the potential for dividend increases. This is incredibly useful for enhancing internal strength in the company.

The dividend payout ratio (DPR) compares the results of cash dividends per share with earnings per share (Sartono, 1990). In the International Journal of Economics, Commerce, and Management, (Enrile, 2018) asserted that DPR is a portion of the net profit that the company distributes to investors in the form of dividends. Typically, the portion that is not distributed to investors is reinvested to support future growth. Furthermore, investors can learn about the potential profits and risks of investing in stocks in a company using EPS and DPR analysis. In addition, it is considered that this indicator may assist investors in learning about predictions and future stock movements. The stocks used in this study were stocks of retail sub-sector trading companies that have been listed on the Indonesia Stock Exchange (IDX) for the 2016–2021 period.

The retail sector was selected as it has experienced significant growth despite the fact that practically all sectors suffered a drastic decline in 2020 as a result of the COVID-19 pandemic. However, due to increasing consumer demand, retail companies had relatively high revenue growth. Additionally, dividends were continuously provided to investors each year in order to increase public interest in investment. Furthermore, the study period is 2016–2021, and data were obtained from the financial reports of retail companies. By using data for six years, this research was expected to provide more reliable and concrete results and serve as the foundation for conducting research analysis. As a result, the results of data analysis may subsequently provide the public, especially stock investors, with knowledge

and insight.

III. RESEARCH METHODS

The methods used to analyze this research data were quantitative descriptive analysis and simple linear regression analysis, with data collection techniques in the form of literature study and observation. Quantitative descriptive research is research that uses numbers to describe, investigate, and explain in accordance with the subject studied as well as draw conclusions about the phenomena observed (Listiani in Sulistyawati et al., 2022:70). Additionally, this study used simple linear regression calculations as there was only one independent variable and one dependent variable. Furthermore, the scope of this study was a fundamental analysis based on the EPS ratio and DPR to determine the future prospects for stock investments in retail. The data source used was secondary data, which is data that is taken from certain sources, such as published books, reports, journals, and databases (Sugiyono, 2009).
Moreover, the sample was selected using a purposive sampling technique, with the population including the financial reports of companies in the retail sub-sector for the 2016–2021 period. According to (Notoatmodjo, 1940), the purposive sampling technique is a selection method based on estimates of the nature or characteristics of a population. The following data was used to determine the sample characteristics:

Table 1
Predetermined Sample Characteristics

No.	Characteristics	Total	Description
1.	Retail sub-sector companies	35	Stocks listed on BEI 2023
2.	Capital market	17	≥ 1 trillion
3.	Positive profits provided during the 2016-2021 period	6	Stocks: MIDI, AMRT, RALS, MYOR, ACES, CSAP
4.	Regular dividend distribution during the 2016-2021 period	6	Stocks: MIDI, AMRT, RALS, MYOR, ACES, CSAP
Total Data Sample		Total of stocks = 6 Total of Periods = 6 x 36 data	

Source: BEI, 2023

Classic Assumption Test

The classic assumption test is a requirement that is met in the Ordinary Least Squares (OLS) linear regression model so that the model acts as an estimator. In this case, EPS (X) was the independent variable, and DPR (Y) was the dependent variable.

1. Linearity Test

Based on the linearity test, it will be concluded that if the distribution of research data is determined to be linear, then the research data analysis may use the predetermined method, which is linear regression analysis.

2. Normality Test

A regression model is considered good if it has residual values that are normally distributed (Priyastama, 2020). The normality test can be conducted using two analyses: graphs and

statistical data (Ghozali, 2017).

3. Heteroscedasticity Test

The heteroscedasticity test is a circumstance in which the residuals from one observation to another in the regression model have unequal variance (Priyastama, 2020). The regression model can be considered good if heteroscedasticity does not occur.

4. Autocorrelation Test

The autocorrelation test is a test of regression assumptions in which the dependent variable is not correlated with itself (not related to the variable itself), either with the value of either the preceding or subsequent variable. (Sinambela, Lijan P. dan Sinambela, 2021). The Durbin-Watson test (DW Test) was used to conduct the test method.

Determination Test

The coefficient of determination (R^2) aims to measure how far the capacity of the dependent variable extends. Moreover, the value of the coefficient of determination (R^2) is between zero and one. According to (Jaya, 2020), by conducting this test, the R^2 value should be at least close to 1 (one) so that the regression estimate is closer to the actual condition. According to (Sujarweni, 2018), the coefficient of determination (R^2) should be interpreted as follows:

Table 2
Determination Test Decision Making

No.	Coefficient of Determination (R2)	Decision
1.	The R2 value is small (far from approaching 1)	Variable X explains variable Y very limitedly
2.	R2 = 0	Variable X has no impact on variable Y
3.	R2 approaches 1	Variable X has an impact on variable Y

Source: Sujarweni, 2018

Simple Linear Regression Analysis

According to (Sugiyono, 2009), simple linear regression equation is as follows:

$$\hat{Y} = + bX$$

The equation below may be used to determine the values of a and b:

$$= \frac{(\Sigma Y)(\Sigma X^2) - (\Sigma X)(\Sigma XY)}{n\Sigma X^2 - (\Sigma X)^2}$$

$$= \frac{n\Sigma XY - (\Sigma X)(\Sigma Y)}{n\Sigma X^2 - (\Sigma X)^2}$$

Description:

$\hat{Y}$ = (Y hat), the projected dependent variable subject

X = Independent variable (EPS)

Y = Dependent variabel (DPR)

a = Constant
b = Regression coefficient

n = Number of samples

Hypothesis Testing

A temporary assumption or presumption that has to be validated is called a hypothesis (Jaya, 2020). There are two models for the hypothesis: the null hypothesis (H0), which is designed to be rejected, and the alternative hypothesis (Ha), which is designed to be accepted. In addition, a partial regression coefficient test (t test) was used for hypothesis testing.

The t test is a test used to obtain a partial hypothesis about the relationship between the independent and dependent variables (Jaya, 2020). In this instance, a confidence level of 95% and a margin of error (a = 5%) were used. By comparing the t value to the ttable with degrees of freedom (df) = n-k, the significance level was determined to be 0.05.

H0: Variable X has no impact on variable Y.
Ha: Variable X has an impact on variable Y.

IV. RESULTS AND DISCUSSION

Table 3
Results of Quantitative Descriptive Data Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
EPS	36	-20.60	96.12	47.2261	28.53033
DPR	36	.00	.75	.3769	.15552
Valid N (listwise)	36				

Source: Output SPSS V23, April 2023

The results of data processing were obtained in the form of descriptive statistics, which showed the standard deviation and average values of the data used. Table 3 above demonstrates that the standard deviation of the EPS and DPR variables was smaller than the average, which was 28.53 < 47.22 and 0.15 < 0.37, respectively. This is due to the fact that only 36 research data were collected because the sample only included 6 retail sector stocks out of a total of 35 stocks in the same sector for the 2016–2021 period (6 years). However, this data was considered sufficient to discover the analysis of this research because it exceeded the minimum data requirements so that further regression testing could be conducted.

Classic Assumption Test

1. Linearity Test

The linearity test results below (Table 4) demonstrate the significance value = 0.234 > 0.05 and obtained F count (1.442) < F table (2.45) from df (6;28), which indicates that there was a significant linear relationship between EPS and DPR.

Table 4
Linearity Test Results

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
DPR * EPS_X	Between Groups	(Combined)	.312	7	.045	2.333	.052
		Linearity	.147	1	.147	7.680	.010
		Deviation from Linearity	.165	6	.028	1.442	.234
	Within Groups		.535	28	.019		
	Total		.847	35			

Source: Output SPSS V23, April 2023

2. Normality Test

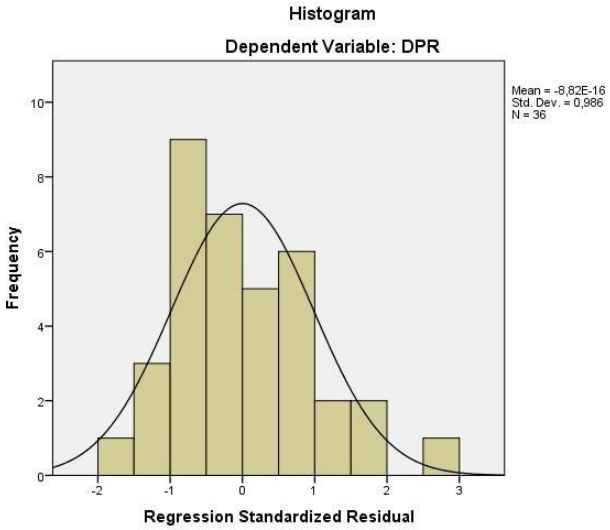

Figure 3. Normality Histogram
Source: *Output SPSS V23*, April 2023

The regression results in this research analysis demonstrate a graph that was normally distributed (Figure 3). This is shown by the histogram graph, which formed a valley and was located in the middle, implying that the graph was not skewed either to the left or to the right. Therefore, it was concluded that the regression data of this study met the requirements for normality.

In addition, the normal probability plot graph (Figure 4) demonstrates that there were points

scattered around the line and following the diagonal line, thus the residual could be considered normal.

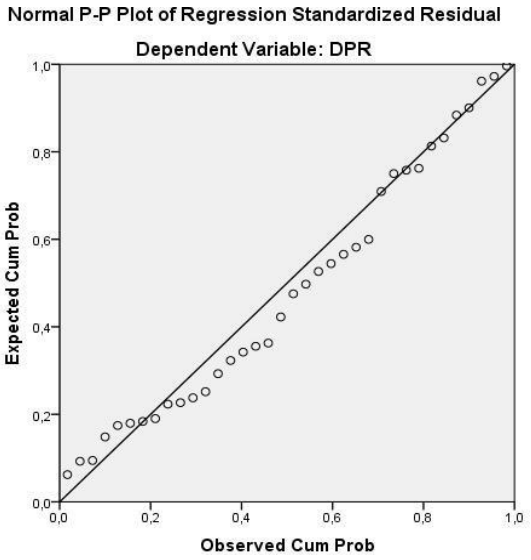

Figure 4. Probability Plot Graph
Source: *Output SPSS V23, April 2023*

3. Heteroscedasticity Test

Table 5

Glejser Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.113	.027		4.141	.000
	EPS	-2.582 E-5	.000	-.009	-.052	.959

a. Dependent Variable: abs_res
Source: Output SPSS V23, April 2023

The test results using the Glejser test (Table 5) display Sig. EPS = 0.959. In other words, Sig. (0.959) > 0.05, thus it could be inferred that there was no heteroscedasticity in the regression model of this study.

A scatterplot test was also used to determine whether heteroscedasticity existed or not. Moreover, the findings (Figure 5) display a pattern in the form of dots, which did not clearly form a pattern. In addition, the scatterplot test indicates that this study did not demonstrate heteroscedasticity or that heteroscedasticity did not exist since this pattern spreads below and above the number 0 (zero) on the Y axis.

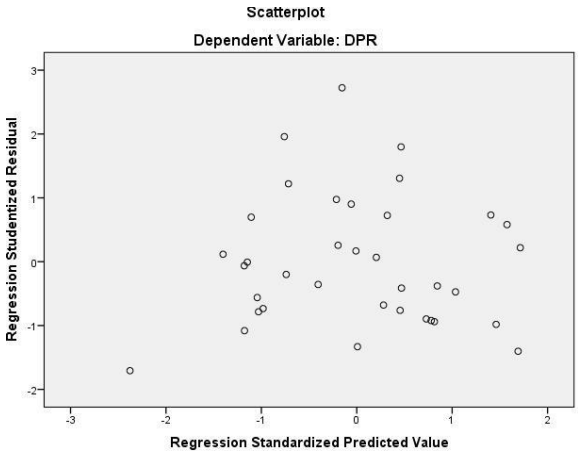

Figure 5. Scatterplot Test Results
Source: *Output SPSS V23, April 2023*

4. Autocorrelation Test

The results of the summary model (Table 6) obtained from the autocorrelation test show that the calculated Durbin-Watson (DW) value was 2.031. Moreover, it was discovered that the resulting decisions were N = 36 data, k = 1, and k; N = (1.36). These data led to the values of dL = 1.410 and dU = 1.524, which allowed for the conclusion that dU < DW < 4-dU or 1.524 < 1.851 < 2.476. According to these findings, it was revealed that autocorrelation did not occur in the regression model in this study.

Table 6
Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.426[a]	.182	.157	.14275	2.031

a. Predictors: (Constant), EPS

b. Dependent Variable: DPR

Source: Output SPSS V23, April 2023

Determination Test

Table 7
Determination Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426[a]	.182	.157	.14275

a. Predictors: (Constant), EPS

b. Dependent Variable: DPR

Source: Output SPSS V23, April 2023

The determination test findings (Table 7) demonstrate that the R square value was 0.182, or a coefficient of determination of 18.2%. This indicates that the EPS value had an 18.2% impact on the DPR and that other variables that were not examined in this study had an 81.8% impact. These results suggest that the R square (0.182) had a small value or was far from approaching 1 (one), implying that the EPS variable in explaining the DPR variable was very limited.

Simple Linear Regression

Table 8
Simple Linear Regression Results (Coefficients)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.267	.046		5.749	.000
	EPS	.002	.001	.426	2.746	.010

a. Dependent Variable: DPR

Source: Output SPSS V23, April 2023

The equation, **Y = 0.267 + 0.002 X**, was obtained from the results of simple linear regression. Table 8 above demonstrates the Sig. value = 0.000 and 0.010 < 0.05, then H0 was rejected, the regression coefficient was significant, or the EPS value was significantly related to DPR.

Hypothesis Testing

It was discovered that the results of the partial hypothesis test or t test using the same coefficient (Table 8) were known: N = 36 data, k = 2, α = 0.05, df = 34 (N-k), k; df = (2.34), then obtained t count (2.746) > t table (2.032) or probability value (α) 0.05 > Sig. 0.010, so it could be concluded that H0 was rejected and Ha was accepted. This indicates that the EPS variable had an impact on the DPR variable. In addition, a positive t value indicated that variable X had a unidirectional relationship with variable Y.

V. CONCLUSIONS AND POLICY IMPLICATIONS

The following conclusions were drawn as a result of the data analysis and interpretation of the study findings described in the preceding chapter:

1. Based on regression results and partial hypothesis testing (t test), the EPS parameter results had a significance value (Sig.) of 0.010, which could be proven with a probability value (α)0.05 > Sig. 0.010 or the calculated t value (2.746) > t table (2.032), and it was then explained that Ha was accepted and H0 was rejected. In other words, the EPS variable had a partially significant impact on the DPR variable (Priyastama, 2020:131). Moreover, a positive t value demonstrated that variable X had a direct or unidirectional relationship with variable Y. Furthermore, if the EPS value of the company's financial performance increased, then the DPR value also increased, which implies that there was an increase in the company's

sales and profits. In addition, the performance of a company improves when EPS increases because of the higher return on invested capital and increasing dividends.

2. According to the results of the analysis, it was discovered that the EPS variable and the DPR variable had a linear distribution relationship, which was Sig. (0.234) > 0.05 or F count (1.442) < F table (2.74), residuals were normally distributed (Asymp. Sig. = 0.200 > 0.05), heteroscedasticity did not occur (Sig. Variable X = 0.959 > 0.05), and there was no autocorrelation or dU < DW < 4-dU (1.524 < 2.031 < 2.476). Therefore, future stock performance in companies in the retail sector may be predicted using the EPS ratio and DPR. Moreover, DPR is a financial ratio that investors should be highly acquainted with as a consideration in their investments since it may be used to explain the profits obtained from a business (Bustani et al., 2021). However, other independent variable components are required to explain the dependent variable in order to determine the prospects for stock investment in the retail sector. This is due to the results of the determination test demonstrating that R squared = 0.183, or the coefficient of determination for the EPS variable = 18.3% in explaining the DPR variable. It may be inferred that the EPS ratio still has limitations in explaining the DPR ratio or variable, or, in other words, variable X explained variable Y very limitedly (Sujarweni, 2018), of which 81.7% was another independent variable not examined in this study. As a result, in order for an investor or potential investor to comprehend and predict the performance of a company's financial statements, it is crucial that they pay attention to other factors. This has a significant impact on stock choices and stock investment prospects, particularly given that companies in the retail trade sub-sector are enhancing their company performance.

3. By using a simple linear regression analysis, it was obtained that the one-sided correlation significance level (Sig. (1-tailed)) was 0.005. This indicates that if the value was 0.005 < 0.05, there was a significant or very obvious relationship between the EPS variable and the DPR variable. In addition, based on the results of simple linear regression coefficients, it was obtained that the significance (Sig.) values were 0.000 and 0.010, which means they were smaller than 0.05; therefore, Ha was accepted and the significance regression coefficient or EPS variable was significant for the DPR variable (Priyastama, 2020). Moreover, from the variable analysis conducted on shares owned by the following companies: PT Midi Utama Indonesia, Tbk (MIDI), PT Sumber Alfaria Trijaya, Tbk (AMRT), PT Ramayana Lestari Sentosa, Tbk (RALS), PT Mayora Indah, Tbk (MYOR), PT Ace Hardware Indonesia, Tbk (ACES), and PT Catur Sentosa Adiprana, Tbk (CSAP), it was concluded that the results of the variable analysis provided a good opportunity for investors or customers to invest in shares in the retail sector. This provides significant benefits to parties with excess funds (investors), who will receive dividends and capital gains, as well as to parties in need of funds (companies), who will be able to obtain capital to develop and expand their businesses.

REFERENCE

Bustani, B., Kurniaty, K., & Widyanti, R. (2021). The Effect of Earning Per Share, Price to Book Value, Dividend Payout Ratio, and Net Profit Margin on the Stock Price in Indonesia Stock Exchange. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, *11*(1), 1. https://doi.org/10.30588/jmp.v11i1.810

Corrado, C. J. dan B. D. J. (2002). *Fundamentals of Investments Valuation & Management*. McGraw-Hill.

Dr. Nagendra S, Dr. Satish Kumar, M. A. V. (2018). *Analysis of Impact of Earning Per Share, Dividend Per Share and Price Earnings Ratio on Stock Performance*. *8*(3), 187–214.

Enrile, O. B. (2018). The Relationship Between Dividend Payout Ratio and Market Values of Firms Listed at The Nairobi Securities Exchange. *International Journal of Economics, Commerce and Management*, *6*(6), 615–642.

Frank J. Fabozzi, H. M. M. (2011). *Fabozzi, Frank J. (2011). Investment Management. New Jersey: John Wiley & Sons, Inc.* John Wiley & Sons, Inc. https://doi.org/10.1002/9781118267028

Ghozali, I. (2017). *Aplikasi Analisis Multivariat dengan Program IBM SPSS 21*. Universitas Diponegoro.

Jaya, I. M. L. M. (2020). *Metode Penelitian Kuantitatif dan Kualitatif (Teori, Penerapan, dan Riset Nyata)*. Penerbit Quadrant.

Jogiyanto. (2014). *Teori Portofolio dan Analisis Investasi*. BPFE UGM.

Notoatmodjo, S. (1940). *Metodologi penelitian kesehatan*. Rineka Cipta.

Priyastama, R. (2020). *The Book of SPSS: Pengolahan & Analisis Data*. Penerbit START UP.

Sartono, A. (1990). *Manajemen keuangan : teori dan aplikasi*. BPFE.

Sinambela, Lijan P. dan Sinambela, S. (2021). *Metodologi Penelitian Kuantitatif: Teoretik dan Praktik*. PT RajaGrafindo Persada.

Strauss, William dan Howe, N. (1991). *Generations The History of America's Future, 1584 to 2026*. William Morrow & Company, Inc.

Sugiyono, 2019. (2009). *Prof_dr_sugiyono_metode_penelitian_kuant.pdf*.

Sujarweni, W. V. (2018). *Metodologi Penelitian Bisnis dan Ekonomi Pendekatan Kuantitatif*. Pustaka Baru Press.

Tandelilin, E. (2010). *Portofolio dan Investasi: Teori dan Aplikasi*. Kasinius.