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Determinants of Net Profit Margin in Plastic and Packaging Sub-Sector Companies Listed on the Indonesia Stock Exchange for the 2020-2022 Period

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ABSTRACT

Net profit margin is important to be able to increase company profits. Net profit margin is a comparison that shows the company's net profit on the results of buying and selling, the higher the value of the net profit margin the higher the organization's ability to earn net profit from sales. The purpose of this study is to understand and measure the impact of Current Ratio (CR) and Debt to Asset Ratio (DER) on net profit margin for plastic and packaging sub-sector companies listed on the Indonesia Stock Exchange (IDX) in 2020-2022. This study used a quantitative approach with a total of 36 research samples. The sample selection technique uses purposive sampling. The test was conducted using multiple regression analysis, research data obtained through financial reports sourced on the Indonesia Stock Exchange. Liquidity as measured by CR does not significantly affect net profit margin. While another factor is that leverage measured by DER has a significant positive impact on net profit margin. The limitations of this study are the lack of samples and the low adjusted R square number of 0.439, meaning that the independent variable is only able to describe its effect on the dependent variable as much as 43.9%. Suggestions for future research are to add samples and other variables including (1) company size; (2) sales growth; (3) total asset turnover and so on that can explain the effect on net profit margin.

Keywords: *Net Profit Margin, Current Ratio, Debt to Aset Rasio.*
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INTRODUCTION

Industrial growth in Indonesia encourages all established companies to compete to improve the progress of their companies. The purpose of establishing a company is to achieve maximum profit. Achievement in achieving profit level is a crucial factor in determining the continuity and development of the company. The profit obtained can be utilized by the company to manage operations and strengthen its position in facing competition at the local, national, and international levels. Therefore, companies are expected to achieve optimal performance, namely achieving feasible goals, while encouraging management to work more effectively and efficiently (Agustina & Mulyadi, 2019).

Evaluation of company performance can be done through analysis of financial statements that are prepared regularly in each certain period. Accounting information that includes the company's operational activities and financial condition can be found in the details of the financial statements (Megasari et al., 2018). Financial reporting is a form of accountability from the management of the organization for the management of the resources that have been entrusted to them, and reflects the performance that has been achieved. As the main accounting report, financial statements have a central role in conveying data to stakeholders, allowing them to conduct economic analysis and forecasting for the future (Pangestuti et al., 2020).

Table 1.
Net Profit Margin Realization Table

Code	Company Name	2020	2021	2022
ESIP	PT Sinergi Inti Plastindo Tbk	-0.04	-0.01	-0.01
YPAS	PT Yanaprima Hastapersada Tbk	-0.03	-0.03	0.00
PICO	PT Pelangi Indah Canindo Tbk	-0.07	-0.11	-0.02

Source: Data processed from the Central Statistics Agency for the period 2019-2021

In Table 1, it can be seen that in the plastic and packaging sub-sector companies listed on the IDX for the period 2020 – 2022, there are 3 organizations that face losses. The business entities are PT ESIP, PT YPAS, and PT PICO. The losses experienced by the three companies can make the value of net profit margin every year not fixed, sometimes facing spikes and some facing difficulties.

The weakening of the rupiah exchange rate against the United States dollar poses a threat to plastic organizations, especially those that still depend on imported raw materials. The impact of this weakening rate includes an increase in the price of plastic packaging products in the market, estimated at around 7.5%. In addition, the domestic plastic and packaging industry is also faced with various challenges, including the lack of recovery in consumer purchasing power and the flood of plastic products originating from China (industri.kontan.co.id). CNN Indonesia online news, the manufacturing industry in Indonesia decreased in the third quarter of 2021 by 48.75% or lower than the previous quarter, 51.45%. The weakening of profit development due to the country's economic situation which is facing ugliness due to the global crisis

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which causes companies in manufacturing organizations to even tend to face a decline.

Financial health and the progress of the company show the level of efficiency in its operations, becoming a must in competition with other companies. Along with technological advances and increasing specialization in various enterprises, the role of factors of capital production is becoming increasingly significant. Financial statements play an important role as a basis for making investment decisions for investors or potential investors. Therefore, financial statement analysis, one of which is carried out through financial ratio analysis, is an important action to understand the company's performance and financial condition. Cahyaningrum (2012) financial statement analysis involving the calculation and interpretation of financial ratios plays a key role in reading and understanding the performance of a company. If financial ratios can serve as indicators that can forecast future profit growth, these findings provide valuable information for users of financial statements. Whether you are actually involved with the company or for potential interested parties, an understanding of the potential for profit growth can be an important foundation in making investment decisions or engaging with the company.

Financial ratio analysis provides significant insights to assist stakeholders in making more informed and informed decisions (Amalya, 2018). Measurement findings can be interpreted to understand the financial condition and performance of business entities for some time and the performance of business entities compared to industry averages. Siregar & Batubara (2017) said that financial comparisons can be used in evaluating the economic condition of a company and its performance. The use of the company's financial ratios from year to year is useful for assessing changes in the company's condition and performance during the period.

These financial comparisons can be in the form of leverage comparisons, liquidity comparisons, and profitability comparisons. According to Andriyani (2015), financial ratios provide investors access to company financial data and operational performance that helps them assess the strengths and shortcomings of a company. According to Selviani et al. (2022), defining the numbers obtained through the comparison of financial statements is known as financial ratios. From the phenomena that have been described, the reviewer is interested in carrying out studies related to the determinants of Net Profit Margin in Plastic and Packaging Sub-Sector companies on the IDX for the 2020-2022 period.

In the study of Megasari et al. (2018) the findings of the study show that partially, the Current Ratio (CR) and Debt to Asset Ratio (DER) have a significant and negative influence. On the other hand, Net Profit Margin (NPM) does not show a large and positive influence on profit growth. This study includes a sample of manufacturing companies active in the chemical processing and pharmaceutical sectors. Although using a similar organization, namely manufacturing, the characteristics of these 2 kinds of industries are not the same Kadir & Phang (2012). As in terms of the company's skills to generate profits, also indicators that affect the crucial net profit margin (NPM) of the organization.

RESEARCH METHODE

This study uses a quantitative approach, which includes efforts in collecting information that is data. This information is then managed by applying statistical formulations and generated from variables that have been implemented, through certain measuring scales including nominal, ordinal, interval, and comparison scales. The source of data used in this study is secondary data, obtained from companies operating in the plastics and packaging sub-sector listed on the Indonesia Stock Exchange (www.idx.co.id). The information used is the annual financial report of plastic and packaging sub-sector companies for the 2020-2022 period.

This study uses purposive sampling technique which is a selection method based on certain criteria, such as: (1) plastic and packaging sub-sector companies listed on the Indonesia stock exchange; (2) plastic and packaging sub-sector companies that publish detailed financial data on the IDX for the period 2020-2022; (3) profit-making companies. A total of 36 observational data were found from 12 companies in the plastic and packaging sub-sector.

Data analysis techniques

In this study using multiple linear regression equations using the SPSS application, because there are independent and dependent variables. The variance of multiple linear regression is as below:

$$Y = a + B1X1 + B2X2 + et$$

Note:

a : Constant
X1 : Liquidity
X2 : Leverage
Et : Tern error

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RESULT AND DISCUSSION

Descriptive Analysis Results

Descriptive statistical analysis aims to illustrate information observed through minimum, maximum, mean, and standard deviation (Ghozali, 2018). The findings of descriptive statistical analysis can be observed in the table below:

Table 2.
Descriptive Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Sdt.Deviation
NPM	36	-.11	.11	.0282	.04662
CR	36	.56	15.49	2.0725	2.45828
DER	36	.03	4.67	1.0601	1.03094
ValidN (listwise)	36				

Source: SPSS Processed Data, 2023

From the findings of descriptive statistical testing, the maximum net profit margin value is 0.11, this is because some research data experienced quite good profit growth from 2020-2022. The profit growth is due to sales that are quite increasing every year. The minimum value of -0.11 for net profit margin is due to the 3 companies experiencing losses every year. The average value of 0.0282 occurs because quite a lot of companies experience profits which means the net profit margin in this study is quite good.

The maximum value for the variable current ratio is 15.49 due to the company's obligation to pay its long-term debt using the company's profit value in a current state which means that the company always keeps its short-term debt less than 1 year. The minimum value of 0.56 is due to some companies that are unable to pay short-term debt for less than 1 year because the company is experiencing losses. The average value of 2.0725 is in a fairly good condition because more companies are able to pay off short-term debt in less than 1 year.

The maximum value for the variable debt to equity ratio is 4.67. This means that the amount of debt owned by the company is able to give confidence to investors to invest in the company. The minimum value is 0.03 because there are some companies that have debt greater than the equity value which means the company is not able to manage finances properly. The average value of 1.0601 means that it is in a fairly good condition because more companies in this study are able to give confidence to investors through debt values that are smaller than the value of capital.

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Classical Assumption Test Results

Normality Test

Table 3.
Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		36
Normal Parameters	Mean	.0000000
	Std.Deviation	.03491230
Most Extreme Differences	Absolute	.076
	Positive	.063
	Negative	-.076
Test Statistic		.076
Asymp.Sig.(2-tailed)		.200[c,d]

Source: SPSS Processed Data, 2023

The normality test is carried out to test whether the two variables have a normal spread or not. The significance number is above 0.050 so that the information is normally distributed. Based on the findings of the normality test using the Kolmogorov-Smirnov Test, Asymp looks good. Sig. (2-tailed) is 0.200, of which 0.200 is higher than 0.050. So it can be concluded that residual information in the study is distributed normally.

Multicholinerity Test

Table 4.
Multicholinerity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
1(Constant)		
CR	.909	1.100
DER	.909	1.100

Source: SPSS Processed Data, 2023

This study used a multicollinearity test to show a linear relationship between independent variables in the regression model. Multicollinearity does not occur if the tolerance value > 0.010 and the VIF value < 10. Based on table 4 shows the overall VIF value of the variables Profitability, Leverage, and Liquidity is less than 10 (VIF < 10) and the tolerance value is greater than 0.010 (Tolerance > 0.010). So it can be concluded that these variables are free from multicollinearity.

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Autocorrelation Test

Table 5.
Autocorrelation Test Results

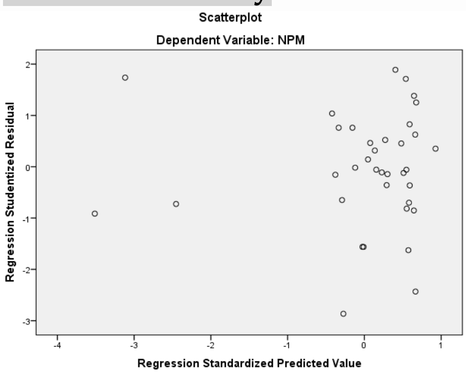
Model Summary[b]	
Model	Durbin-Watson
1	1.637

Source: SPSS Processed Data, 2023

The autocorrelation test aims to test whether in linear regression variance there is a relationship between confounding errors in period t and confounding errors in periods t–1 or earlier. The findings of the autocorrelation test in table 5 show that the Durbin-Watson test number is 1.637 means higher than the dU value of 1.5872 in significance level 0.05 and lower than the value of 4 -dU (2.4128) so that it can be said that there is no positive or negative autocorrelation.

Heteroscedasticity Test

Figure 1.
Heteroscedasticity Test Results



Source: SPSS Processed Data, 2023

Based on table 6, heteroscedasticity test results through white test show the significance value of the independent variable is greater than 0.05 (>5%). Thus it can be concluded that the regression model in this study did not occur heteroscedasticity disorder.

Multiple Regression Analysis Test Results

Table 6.
Multiple Analysis Test Results

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std.Error	Beta		
1(Constant)	.068	.011		5.959	.103
CR	-.003	.003	-.160	-1.167	.251
DER	-.031	.006	-.693	5.069	.030

Source: SPSS Processed Data, 2023

This study used multiple regression managed through a data processing application, the SPSS program. Multiple regression analysis is used to measure the strength of the relationship of 2 or more independent variables to the dependent variable and the direction of correlation between the independent and dependent variables (Ghozali, 2018). Based on the findings of multiple linear regression analysis in table 7, the regression equation can be formulated, namely:

$$\textit{Net Profit Margin} = 0{,}068 + (-0{,}003)\ X1 + (-0{,}031)\ X2$$

Hypothesis Test Results

Test F or Test Model Credentials

Table 7.
F Test Results

ANOVA[a]					
Model	Sumof Square	Df	MeanSquare	F	Sig.
1Regression	.033	2	.017	12.917	.016[b]
Residual	.043	33	.001		
Total	.076	35			

Source: SPSS Processed Data, 2023

The F test is used to test whether or not regression variations will be used in research. Variation is called feasible if the information is precise with the regression equation. The feasibility of variation can be observed through the results of F ANOVA testing, (Ghozali, 2018). Based on table 8, it can be observed if the findings of the F statistical test show a calculated F number of 4.808 with a signification level of 0.016 where the probability of significance is lower than 0.05. So it can be concluded that liquidity and leverage simultaneously affect Net Profit Margin, meaning that regression variations in this study are feasible to be used in testing hypotheses.

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Coefficient of Determination Test

Table 8.
Coefficient of Determination Test results

Model Summary[b]				
Model	R	RSquare	Adjusted R Square	Std.Errorofthe Estimate
1	.663[a]	.439	.405	.03595

Source: SPSS Processed Data, 2023

The coefficient of determination (R^2) aims to assess the extent of variation's ability to describe the independent variable. The number of coefficients of determination is between 0 – 1. A low R^2 number means that the ability of the independent variable to describe the dependent variable is very limited. A number close to 1 means that the independent variable provides almost all the data needed in estimating the dependent variable (Ghozali, 2018). Based on table 9 of regression findings, the coefficient of determination (R^2) is 0.439. This means that the dependent variable, namely Net Profit Margin, can be described by the independent variable, namely liquidity and leverage as much as 43.9%, and the remaining 56.1% is described from other elements outside the study.

T Test

Table 9.
T Test Results

Coefficients[a]		
Model	T	Sig.
1(Constant)	5.959	.103
CR	-1.167	.251
DER	5.069	.030

Source: SPSS Processed Data, 2023

According to Ghozali (2018), the statistical test t is useful to show the extent of the impact of 1 independent variable individually to describe the variation of the dependent variable. If the significance number < 0.05, then the hypothesis is accepted. If the significance number > 0.05, then the alternative hypothesis is rejected. Based on the test output in the table above, it can be concluded that is:

a. Effect of Liquidity on Net Profit Margin
   Based on the table above, it explains that the effect of liquidity on Net Profit Margin is obtained by sig numbers. A total of 0.251, so the number

of sig. greater (>) than the probability figure of 0.05 therefore indicates that liquidity has no effect on Net Profit Margin, so it can be concluded that H1 is rejected. This happens because the value of short-term debt in each company always faces an increase, meaning that business entities are unable to pay off short-term debts within one year. This results in the company experiencing losses because the short-term value is too large and unable to pay the short-term debt, which can make the Net Profit Margin value decrease when the company experiences losses.

b. Effect of Leverage on Net Profit Margin

Based on the table above, it explains that the effect of leverage on Net Profit Margin is obtained by the sig number. A total of 0.030, so the number of sig. lower (<) than the probability figure of 0.05 thus showing if leverage has a positive effect on Net Profit Margin, therefore conclusions can be drawn if H2 is accepted. In this study, leverage is measured by DER, which means that if the company experiences profits that can increase the value of the company's equity and the company is able to not increase the value of the company's liabilities, it means that the company is in good condition and can increase the company's Net Profit Margin because of an increase in profits. With a good Net Profit Margin value can be useful for the company because it can provide confidence for investors to invest and for creditors in providing loans.

CONCLUSION

From the test findings and information analysis, it can be concluded that liquidity measured through CR does not have a positive effect on the net profit margin in Plastic and Packaging Sub-Sector Companies listed on the Indonesia Stock Exchange for the 2020-2022 period, because the value of short-term debt in each company always faces an increase which means that the company is unable to pay off short-term debt within one year. While other factors are leverage assessed through DER has a positive impact on net profit margin, which means that the company experiences profits that can increase the value of the company's equity and the company is able to not increase the value of the company's liabilities, meaning that the company is in good condition and can increase the company's Net Profit Margin due to an increase in profits. However, simultaneously liquidity and leverage affected net profit margin by 43.9% and the remaining 56.1% was described by other variables outside this study.

This study only uses 2 elements, namely liquidity and leverage. Therefore, it is recommended for future reviewers, in order to add study variables and expand participant coverage criteria in order to obtain more general outputs, the adjusted R square number which tends to be low suggests that in this study the independent elements used only have a slight impact on Net Profit Margin. To produce better research, other variables such as company size, sales growth, and total asset turnover and so on need to be added for further research.

REFERENCES

Agustina, D. N., & Mulyadi. (2019). Pengaruh Debt To Equity Ratio, Total Asset Turn Over, Current Ratio, dan Net Profit Margin Terhadap Pertumbuhan Laba Pada Perusahaan Manufaktur Di Bursa Efek Indonesia. Jurnal Akuntansi, 6(1). www.idx.co.id.

Amalya, N. T. (2018). Pengaruh Return On Asset, Return On Equity, Net Profit Margin dan Debt To Equity Ratio Terhadap Harga Saham. Jurnal Sekuritas, 1(3), 157–181. www.idx.co.id

Andriyani, I. (2015). Pengaruh Rasio Keuangan terhadap Pertumbuhan Laba Pada Perusahaan Pertambangan Yang Terdaftar di Bursa Efek Indonesia. Jurnal Manajemen Dan Bisnis Sriwijaya, 3(3).

Cahyaningrum, N. H. (2012). Analisis Manfaat Rasio Keuangan Dalam Memprediksi Pertumbuhan Laba. Universitas Diponegoro.

Ghozali, H. I. (2018). Aplikasi Analisis Multivariate Program IBM SPSS19 (Vol. 5).

Kadir, A., & Phang, S. B. (2012). Analisis Faktor-Faktor Yang Mempengaruhi Net Profit Margin Perusahaan Manufaktur Yang Terdaftar Pada Bursa Efek Indonesia. 13(1).

Megasari, R., Surtikanti, & Darmansyah. (2018). Determinan Pertumbuhan Laba Perusahaan Manufaktur Di Bursa Efek Indonesia. Jurnal Riset Akuntansi Dan Perpajakan JRAP, 5(2), 166–174.

Pangestuti, R., Wijayanti, A., & Samrotun, Y. C. (2020). Determinan Ketepatan Waktu Pelaporan Keuangan Perusahaan Subsektor Transportasi Terdaftar di BEI. Owner, 4(1), 164. https://doi.org/10.33395/owner.v4i1.199

Selviani, M., Fredy, H., & Astuti, S. B. (2022). Pengaruh Profitabilitas, Likuiditas, Ukuran Perusahaan dan Struktur Kepemilikan Terhadap Ketepatan Waktu Penyampaian Laporan Keuangan. JIAP, 2(2), 95–106.

Siregar, Q. R., & Batubara, H. C. (2017). Analisis Determinan Pertumbuhan Laba di Bursa Efek Indonesia. Jurnal Riset Finansial Bisnis, 1(1), 79–92. https://doi.org/10.5281/zenodo.1049135

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