THE EFFECT OF PROFITABILITY, CAPITAL STRUCTURE, LEVERAGE, AND COVID-19 PANDEMIC ON FIRM VALUE WITH INVESTMENT POLICY AS AN INTERVENING VARIABLE
(Study on Food and Beverage Companies Listed on the Indonesia Stock Exchange (IDX) 2018-2021 Period)

Candra Novi Rochmadi [1)], Triyono [2)]
[12]Faculty of Economy and Businesss, Muhammadiyah Surakarta University
E-mail: [*1] b200190114@student.ums.ac.id

Abstract

This research aims to analyze the effect of Profitability, Capital Structure, Leverage, Covid-19 pandemic on Firm value with Investment Policy as an Intervening Variable. The analysis was carried out using secondary data from food and beverage companies listed on IDX for the 2018-2021 period. The sampling technique used purposive sampling. The number of samples obtained were 46 food and beverage companies. The analysis used multiple regression analysis, path analysis, and sobel test. The results of the analysis showed that profitability, capital structure, leverage, and covid-19 have a significant effect on investment policy. Profitability has a significant effect on firm value, while capital structure, leverage and covid-19 have no effect on firm value. Investment policy has a significant effect on firm value. The result of z (sobel test) can be concluded that the investment policy variable was able to mediate the profitability, capital structure, and leverage variables.

Keywords: *Profitability; Capital Structure; Leverage; Covid-19 Pandemic; Investment Policy.*

1. INTRODUCTION

In an increasingly developing economic and business world, many companies are doing various ways to maintain the existence of their companies to meet capital needs. In general, companies have two goals, namely short-term and long-term. The short-term goal is to maximize profits with the resources owned, while the company's long-term goal is to increase company value. The company aims to maximize shareholder welfare through investment decisions and policies, leverage, and dividend decisions which are reflected in the stock price in the stock market(Eka Handriani & Robiyanto, 2018).

Food And Beverage companies are one of the manufacturing company sectors engaged in the food and beverage industry. Food And Beverage companies in Indonesia are growing rapidly. Judging from the number of companies listed on the Indonesia Stock Exchange from period to period more and more. Food and Beverage sub-sector companies were chosen because they can play an important role in meeting consumer needs, especially during the COVID-19 Pandemic. Food and Beverage companies still survive compared to other sectors because in any condition some food and beverage products are still needed.

The importance of firm value makes investors and creditors more selective in making investments. For investors, firm value gives the company a positive signal to invest in the company. Company value for creditors can provide a sense of security in providing loans. To attract the attention of these investors, the company must be able to maximize its performance and pay attention to the factors that affect its performance so that its company value is maximized. Information about firm value is very important in making decisions in stock

investment, because this information can help investors know which stocks have good performance and experience growth. Firm value itself is influenced by many factors, including profitability, capital structure, leverage, and investment policy.

Profitability shows how well a company can utilize its assets to generate expected profits. The company's capital structure shows how long-term debt and equity capital are used by the company. The solvency ratio or leverage ratio is a ratio used to measure the extent to which the company's assets are financed with debt (Kasmir, 2016). (Rashid, 2016)stated that investment policy is an important component of the issuer's finance, and only investment policy determines the value of the company.

In 2020, the world was rocked by a deadly virus pandemic called Corona Virus Disease (Covid-19). The speed of the spread of the corona virus is so fast that the increasing spread of the corona virus in Indonesia has forced the Indonesian government to take various steps. This virus shakes the economy of various countries, including Indonesia. This economic impact is also clearly illustrated in the capital market. The Jakarta Composite Index (JCI) plummeted to its lowest level in four years. Therefore, a business strategy is needed so that business activities can survive in the midst of the Covid-19 pandemic.

2. RESEARCH METHODS

This research uses explanatory research approach(Sugiyono, 2019). This study was conducted at the Indonesian Stock Exchange on the food and beverage companies listed on the Indonesian Stock Exchange (IDX) from 2018 to 2021(Jonathan Sarwono, 2016). Researches uses purposive sampling with the criteria that the company was still listed in IDX during the research and had all the data needed on research(Ali, 1999). The data used secondary data in the form of the company's annual report obtained from *www.idx.co.id*(Hair, 2010). The method of data analysis in this research used Multiple Linear Regression Analysis, path analysis and sobel test(Maulana et al., 2022).

Definition Variable

Profitability

Independent variable in this research is profitability. Variable profitability is proxied by Return on Asset (ROA). ROA is used to measure the company's effectiveness in generating profit by utilizing the assets owned. The higher the ROA showed that the company's performance is getting better, because the rate of return is also higher. Profitability can be measured by the formula :

$$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Asset}}$$

Capital Structure

Variable capital structure is proxied by Debt to Equity Ratio (DER)(Wijaya, 2021). Debt to Equity Ratio, namely total liabilities divided by total equity, which shows a measure of the level of debt usage (total debt) against the capital owned by the company (Wahyuni et al., 2020). DER provides guarantees about how much debt the company owes by its own capital. The capital structure is said to be optimal if it maximizes the company's share price. Debt to Equity Ratio can be measured by the formula :

$$\text{DER} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Leverage

Variable leverage is proxied by Debt to Asset Ratio (DAR). DAR is calculated how much debt finances the company's assets or how much debt affects the company's asset management. When a company's debt ratio is higher, there is a greater chance that it will not be able to fulfill

its obligations. Therefore, loans should be used wisely to increase profit opportunities (PWC, 2017). Debt to Asset Ratio can be measured by the formula :

$$\text{DAR} = \frac{\text{Total Debt}}{\text{Total Asset}}$$

Covid-19 Pandemic

Variable covid-19 pandemic is proxied by dummy. Covid-19 Pandemic can be measured by the formula :

0 = Before Covid-19
1 = After Covid-19

Investment Policy

Intervening variable in this research is investment policy(Putra & Gantino, 2021). Variable investment policy is proxied by Growth(Fahmi, 2014). Growth is a type of change in total assets either in the form of an increase or decrease experienced by company during one period. According to Saidi, 2004 in Dinda's research (Sudana, 2020) asset growth is calculated as a percentage change in assets at a certain time against the previous year. Growth can be measured by the formula :

$$\text{Growth} = \frac{Total\ Asset\ (t) - Total\ Asset\ (t-1)}{Total\ Asset\ (t-1)}$$

Firm value

Dependent variable in this research is firm value. Variable firm value is proxied by Price Book Value (PBV)(Matts Rosenberg, 2003). PBV measures the value that the market gives to management or companies for the performance of the company's financial management. Price Book Value can be measured by the formula :

$$\text{PBV} = \frac{\text{Market Price Per Share}}{\text{Book Value Per Share}}$$

3. RESLUT AND DISCUSSION

3.1.Result

Descriptive statistics were used to simplify and understand the variables used in the research which include the minimum value, maximum value, average (mean), and standard deviation values. In this study, the discussion of descriptive statistical analysis was carried out for data that had been normalized. Data on food and beverage sub sector companies that fulfill the research sample criteria are 46 companies with a research time period of 2018 to 2021.

Table 1
Statistic Descriptive

	N	**Minimum**	**Maximum**	***Mean***	**Std. Deviation**
Profitabilitas	146	-0,5825	0,6072	0,51586	0,1111459
Struktur Modal	146	-2,5423	3,3389	0,913819	0,7955479
Leverage	146	0,1085	1,9253	0,469948	0,2620544
Efek Covid-19	146	0	1	0,49	0,502
Kebijakan Investasi	146	-0,3714	0,4931	0,051001	0,0999084
Nilai Perusahaan	146	-0,3125	8,5345	2,061935	1,7263592
Valid N *(listwise)*	146				

Source : secondary data spss

Based on the results of the table, it shows that the profitability variable has the minimum value of -0,5825, the maximum value of 0,6072, the average value of 0,51586 and the standard deviation of 0,1111459. The capital structure variable has the minimum value of -2,5423, the

maximum value of 3,3389, the average value of 0,913819 and the standard deviation of 0,7955479. The leverage variable has the minimum value of 0,1085, the maximum value of 1,9253, the average value of 0,469948 and the standard deviation of 0,2620544. The Covid-19 pandemic variable has the minimum value of 0, the maximum value of 1, the average value of 0,49 and the standard deviation of 0,502. The investment policy variable has the minimum value of -0,3714, the maximum value of 0,4931, the average value of 0,051001 and the standard deviation of 0,0999084. The firm value variable has the minimum value of -0,3125, the maximum value of 8,5345, the average value of 2,061935 and the standard deviation of 1,7263592.

Before used analysis the model of the regression, the classical assumption test is analyzed first. The classical assumption test which includes normality, multicollinearity, heteroscedasticity, and autocorrelation tests on each regression model. Normality used one-sample kolmogorov-smirnov test. Multicollinearity test was tested to see the tolerance between the independent variables and the Variance Inflation Factor (VIF). Heteroscedasticity used sperman's rho test. Autocorrelation used durbin-watson. The results of the classical assumption test are presented in tables below.

Table 2
Classical Assumption Testing Result
Classical Assumption Test on the First Regression Model

Variable	**Normality Test**	**Multicollinearity Test**		**Heteroscedasticity Test**	**Autocorrelation Test**
	Asymp.Sig	Tolerance	VIF	Sig.	
-Profitabilitas	0,200	0,937	1,067	0,086	1,649
-Struktur Modal		0,981	1,019	0,935	
-Leverage		0,946	1,057	0,741	
-Efek Covid-19		0,997	1,003	0,687	

Classical Assumption Test on the Second Regression Model

Variable	**Normality Test**	**Multicollinearity Test**		**Heteroscedasticity Test**	**Autocorrelation Test**
	Asymp.Sig	Tolerance	VIF	Sig.	
-Profitabilitas	0,075	0,785	1,274	0,150	0,925
-Struktur Modal		0,942	1,062	0,510	
-Leverage		0,902	1,109	0,467	
-Efek Covid-19		0,967	1,034	0,930	
-Kebijakan Investasi		0,747	1,339	0,268	

Source : secondary data spss

Based on the table 2, all assumption classic of regression is data has been fulfilled or do not have symptoms. The normality test shows a normal distribution if the p value (Asymp Sig) is more than 0,05. It can be concluded that the residual data in the model is normally assumptions. The multicollinearity test results showed that all variables have a tolerance value of higher than 0,10 and a VIF value that is lower than 10. So it can be concluded that there is no multicollinearity between the independent variables in the regression model. The significance value of the independent variables is higher than 0,05 so it can be concluded that independent variables do not have symptoms of heteroscedasticity. Based on the table, it is known that the

durbin-watson value is between -2 and +2, so it can be said that there are no autocorrelation symptoms.

After the classical assumption test, hypothesis testing is carried out which includes multiple regression analysis, t test, F test, and coefficient of determination test. The results of hypothesis testing are described in the path test below.

3.2.Discussion

4. Table 4 Sobel Test

	B	Std. Error	Sig.	Z (Sobel Test)
Profitabilitas	0,354	0,068	0,000	0,004
Struktur Modal	0,023	0,009	0,016	0,040
Leverage	-0,075	0,029	0,010	0,039
Efek Covid-19	-0,030	0,015	0,039	0,084
Kebijakan Investasi	5,143	1,500	0,001	

Source : secondary data spss

The result of z (sobel test) on profitability, capital structure, and leverage variables are less than 0,05 so it can be concluded that the investment policy variable is able to mediate the profitability, capital structure, and leverage variables. While the results of z covid-19 pandemic is more than 0,05 which means that the investment policy variable is not able to mediate the covid-19 pandemic variable.

Profitability effect on investment policy

Test on hyphotesis 1 (H_1) who stated that profitability have an effect on investment policy is accepted, can be proved by the path coefficient 0,394 and p-value 0,000 which is smaller than 0,05. This shows that the profitability variable has an effect on the investment policy variable. If the company generates large profits and financial managers can manage these profits by making the right financial decisions, investors will respond positively, which in turn will increase company profits. This research in line with also found evidence that profitability has an effect on investment.

Capital structure effect on investment policy

Test on hyphotesis 2 (H_2) who stated that capital structure have an effect on investment policy is accepted, can be proved by the path coefficient 0,179 and p-value 0,016 which is smaller than 0,05. This shows that the capital structure variable has an effect on the investment policy variable. Every investment is made with the hope of increasing the prosperity of investors. This research in line with also found evidence that capital structure has an effect on investment.

Leverage effect on investment policy

Test on hyphotesis 3 (H_3) who stated that capital structure have an effect on investment policy is accepted, can be proved by the path coefficient -0,196 and p-value 0,010 which is smaller than 0,05. This shows that the leverage variable has an effect on the investment policy variable. Leverage at the industry and firm level can sustain and influence the firm's investment. This research in line with also found evidence that leverage has an effect on investment.

Covid-19 pandemic effect on investment policy

Test on hyphotesis 4 (H_4) who stated that Covid-19 have an effect on investment policy is accepted, can be proved by the path coefficient -0,152 and p-value 0,039 which is smaller than 0,05. This shows that the Covid-19 variable has an effect on the investment policy variable. The covid pandemic has caused stock prices to rise, which may affect investment policy.This is in line with evidence that pandemic covid-19 has an effect on investment.

Profitability effect on firm value

Test on hyphotesis 5 (H_5) who stated that profitability have an effect on firm value is accepted, can be proved by the path coefficient 0,174 and p-value 0,042 which is smaller than 0,05. This shows that the profitability variable has an effect on the firm value variable. Profitability is performance indicators of companies that considered by investors to be a factor in measuring the level of return on investment. Profitability high performance and good company prospects. This research in line with also found evidence that profitability has an effect on firm value.

Capital structure effect on firm value

Test on hyphotesis 6 (H_6) who stated that capital structure have an effect on firm value is not accepted, can be proved by the path coefficient -0,068 and p-value 0,381 which is higher than 0,05. This shows that the capital structure variable has no effect on firm value variable. The addition of debt will increase the level of risk on the company's revenue stream which is influenced by external factors. Meanwhile, debt creates a fixed burden regardless of the amount of revenue.This research in line with also found evidence that capital structure has no effect on firm value.

Leverage effect on firm value

Test on hyphotesis 7 (H_7) who stated that leverage have an effect on firm value is not accepted, can be proved by the path coefficient -0,128 and p-value 0,108 which is higher than 0,05. This shows that the leverage variable has no effect on firm value variable. If a high leverage ratio indicates that the company is not solvable, then investors will not be interested in it, so the value of the company decreases.

Covid-19 pandemic effect on firm value

Test on hyphotesis 8 (H_8) who stated that covid-19 pandemic have an effect on firm value is not accepted, can be proved by the path coefficient 0,004 and p-value 0,956 which is higher than 0,05. This shows that the COVID-19 variable has no effect on firm value variable. Covid pandemic can cause the value of the company to increase or decrease depending on whether the company is able to fight during the pandemic. This research in line with also found evidence that covid-19 pandemic has no effect on firm value.

Investment policy on firm value

Test on hyphotesis 9 (H9) who stated that investment policy have an effect on firm value is accepted, can be proved by the path coefficient 0,298 and p-value 0,001 which is smaller than 0,05. This shows that the investment policy variable have an effect on the firm value variable. Investment opportunity is a company value, the amount which depends on the expenditures set by management in the future. Firm value is solely determined by investment policy. This research in line with also found evidence that investment policy has an effect on firm value.

4. CONCLUSION

This study aims to analyze the effect of profitability, capital structure, leverage, covid-19 pandemic on firm value with investment policy as an intervening variable in food and beverage companies listed on the IDX for the 2018-2021 period. Based on the regression results, the study provides evidence of a significant effect of profitability on investment policy and firm value. Capital structure has a significant effect on investment policy and has no effect on firm value. Leverage has a significant effect on investment policy, but leverage has no effect on firm value. Covid-19 pandemic has a significant effect on investment policy and has no effect on firm value. Investment policy has a significant effect on firm value. The results of the sobel test research explain that investment policy is able to mediate profitability, capital structure, and

leverage variables on the company's value. Meanwhile, investment policy is unable to mediate the covid-19 pandemic on firm value.

This study has limitations, namely that the sample of companies in the study was only 46 food and beverage sub-sector companies on the Indonesia Stock Exchange (IDX) so that the research results were only focused on that sector and could not be aimed at all companies. This research is also only focused on the company's financial statement data. To develop this research, future researchers should add additional independent variables that can affect business value. In addition, they must expand the theories related to the variables used.

REFERENCE

Ali, Z. (1999). *Metode Penelitian: Suatu Pemikiran Dan Penerapan*. Rineke Cipta.

Eka Handriani, E. H., & Robiyanto, R. (2018). Corporate Finance And Firm Value In The Indonesian Manufacturing Companies. *International Research Journal Of Business Studies, 11*(2), 113–127. Https://Doi.Org/10.21632/Irjbs.11.2.113-127

Fahmi, I. (2014). *Analisis Laporan Keuangan*. Alfabeta.

Hair. (2010). *Multivariate Data Analysis, Seventh Editions*. New Jersey.

Jonathan Sarwono. (2016). *Meode Penelitian Kualitatif Dan Kuantitatif*. Graha Ilmu.

Kasmir. (2016). *Financial Statement Analysis*. Raja Grafindo Persada.

Matts Rosenberg. (2003). Stock Option Compensation In Finland: An Analysis Of Economic Determinants, Contracting Frequency, And Design. *Demographic Research*, *49*(0), 1-33 : 29 Pag Texts + End Notes, Appendix, Referen. Https://Helda.Helsinki.Fi/Server/Api/Core/Bitstreams/2e1168ea-Febc-4ac5-B73c-Ad3e2fe6c97f/Content

Maulana, R., Pitoyo, A. J., & Alfana, M. A. F. (2022). Analisis Pengaruh Kemiskinan Dan Kondisi Ekonomi Terhadap Indeks Pembangunan Manusia Di Provinsi Jawa Tengah Tahun 2013-2017. *Media Komunikasi Geografi*, *23*(1), 12–24. Https://Doi.Org/10.23887/Mkg.V23i1.39301

Putra, R. D., & Gantino, R. (2021). Pengaruh Profitabilitas, Leverage, Dan Ukuran Perusahaan Terhadap Nilai Perusahaan. *Jurnal Bisnis Dan Manajamen*, *11*(1), 81–96. Doi: Https://Doi.Org/10.15408/Ess.V11i1.20338

Rashid, A. (2016). Firms' Investment Decisions – Explaining The Role Of Uncertainty. *Journal Of Economic Studies*, *44*(05), 833–860. Https://Doi.Org/Https://Doi.Org/10.1108/JES-02-2016-0041

Sudana. (2020). *Manajemen Keuangan Perusahaan: Teori Dan Praktek*. Erlangga.

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, R&D*.

Wahyuni, S., Febriansyah, S., Darni, S., & Razali, R. (2020). Pengaruh Kepemilikan Saham Institusional, Konsentrasi Kepemilikan Saham Dan Profitabilitas Terhadap Keputusan

Investasi. *J-ISCAN: Journal Of Islamic Accounting Research*, *2*(1), 55–66. Https://Doi.Org/10.52490/J-Iscan.V2i1.865

Wijaya, D. N. (2021). Pengaruh Suku Bunga, Nilai Tukar, Pertumbuhan Ekonomi, Kinerja Keuangan, Keputusan Pendanaan, Dan Keputusan Investasi Terhadap Nilai Perusahaan. *Equator Journal Of Management And Entrepreneurship (EJME)*, *9*(1), 1–19. Https://Doi.Org/10.26418/Ejme.V9i1.45929