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Research Article

The Effect of Profitability and Leverage on Firm Value with Firm Size as a Moderating Variable

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Abstract
This study aims to empirically prove and test the effect of profitability and leverage on firm value, with firm size as a moderating variable in food and beverage companies listed on the Indonesia Stock Exchange (IDX) 2019-2021. This quantitative study uses a purposive sampling method with a sample of 23 firms. The data used in this research is secondary data. The results of this study indicate that (1) Profitability negatively affects firm value. (2) Leverage has a positive effect on firm value. (3) With moderation, firm size can moderate profitability with a positive relationship (strengthen) to firm value. (4) Firm size can moderate the relationship of negative (weakened) leverage to firm value. The implications of this study for a firm to consider the factors of firm size, leverage, and profitability, and can be used as a reference by other companies in business strategy, understand aspects of the industry they are in, and pay more attention to environmental developments that can affect the firm's business so that it can increase firm value.

Keywords: Profitability, Leverage, Size, Firm Value, Food and Beverage, IDX

JEL Classification: G30, J24

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1. Introduction

A manufacturing firm is one branch of the industry that applies machinery, equipment, engineering, and energy work. A manufacturing firm is a process medium for converting raw materials becomes goods sold. Term this normal used for activity human, from craft hand until to production with technology high. However Thus, the term this more often used for the term industry, where raw materials are converted to finished goods on a large scale. Manufacture there is in every field system. The usual economy always implies production by mass-for-sale customers to make a profit (Apriyani, 2021).

The food and drink sector is one manufacturing sector still capable of growing positively in the second quarter of 2020. According to data from the Central Statistics Agency (BPS), the food and beverage industry will grow by 0.22% annually in the second quarter of 2020. Minister of Industry Agus Kartasasmita confirms that the food and beverage industry is one sector mainstay of crutch growth manufacturing and the national economy. The non-oil and gas industry's steady and significant contribution to the GDP demonstrates the sector's crucial strategic role. In the first semester of 2020, industrial food and drink contributed the biggest achievements and exports by sector manufacturing, exceeding USD13.72 billion (kemenperin.go.id).

Many investors make industry food and drink an investment target. Before To do investors investments, formerly look for know information firms because very needed for investors to know the performance and value firm. Because of that, firms will always attempt to increase the firm value, which is the investor's performance, substantially linked to the share price. The firm was established to create value add, especially in producing profit. Firm value could be measured by using Price Book Value (PBV) that the ability something a firm to create a value relative firm to the amount of capital to be invested, the more tall risk taken; then the more successful firmly creating value for shareholders; knowing the PBV ratio, investors can identify which shares price are reasonable (Santosa, 2020; Rivandi, 2021).

Ratio profitability is the ratio to evaluate the ability firm to look for profit or profit in something certain period; a ratio also gives size level effectiveness management, something indicated firm from the profit generated from the sales or from income investment (Kasmir, 2016). In a study, this ratio profitability be measured with return on equity (ROE). Return on equity (ROE) shows the ability firm to produce profit after tax by using their capital firm, or ROE can also be called return equity to own capital profitability (Rahmadani & Rahayu, 2017).

Besides profitability, the level of leverage also affects the firm value. Leverage is the size of the funds in the firm used with debt and measured as the ability to pay whole long-term firm obligations. In a studying, leverage uses proxy debt to equity ratio (DER), a ratio used to assess debt with equity, that is, with a method compare Among all debts, including current liabilities, with whole equity (Albart et al., 2020). DER shows a level risk firm where the higher the DER ratio, the taller the risk because the funding element debt is bigger than the own capital (equity). At level certain, the DER ratio can give a value to the firm because it can use to increase production firm and, in the end, could increase profit. However, a DER ratio that is too tall will negatively impact the firm. This thing because the firm will bear large capital costs, so the profit earned will finish paying the cost of the capital. Because of that, the firm will try so that the DER level you have no more from one in structure the financing (Annisa & Chabachib, 2017).

Based on the results studied before, there are inconsistent results. Because the researcher wants to study the return connection among influence profitability to value firms and the effect of leverage on value firms. Besides that, there is an interesting thing that researchers want to do more research on to find a correct and useful conclusion for interested parties. In this, the interested researcher in doing a study carries on, bringing up the moderating variable is the size firm. One of the five that became influenced value firms is a size firm. Size firm is something indicator showing how strong a financial something firm is getting average total sales net in the relevant year until several years. In studying this, the sample that will be used is companies manufacturers listed on the Indonesia Stock Exchange because investors' interest in the Indonesia Stock Exchange is good. Based on the description and background behind the above, the study wants to do a study to know the actual results that occur
with relevant data.

2. Literature Review and Hypothesis

Signaling theory

The importance of the information the firm provides to outside parties making investment decisions is emphasized by signaling theory. Information is an element important for investors' and actors'

business because the information, in essence, serve as a description, notes, or description good for the past state; the moment this or future state comes for continuity life something firm, and how to market the effect. Complete information. Relevant, accurate, and precise time is very required by investors in the capital market as a tool analysis for take decision investments. Published information as something announcement will provide a signal for investors in taking decision investment. The market is expected to react if the announcement contains a positive value (Budiantoro et al., 2022; Aji & Atun, 2019).

The profitability level or profit reported by the firm could signal investors to invest money in the firm. Many opinions state that high profitability will be a positive signal for investors to invest in a firm so that the Request to share the firm increase and can increase the firm's value. Risk level companies can also use as a signal for investors; the level of risk firm could be seen from the use of a debt firm for finance cost operational firm; the taller the use debt firm so will, the more the risk it bears is high, and investors will catch a positive signal to companies that have level low risk (Febriawan & Santosa, 2018).

Size companies can also signal that many investors pay attention to the firm. The more big size, something measured a firm with total assets owned firm, and the more growth in total assets still owned firm could enlarge scale firm. A big firm's size could make it easier to obtain funds for developing a business, and having an inclined profit big can attract investors to invest in the firm, which could increase the firm's value (Santosa et al., 2021). Assumption main from theory signals this gives room for investors to know how decisions will take it related to value firm. As a result, when the leverage ratio, profitability, and size firm show changing value, this automatically gives information to investors in giving an evaluation to value the firm.

Profitability

Ratio profitability is the objective ratio for knowing the ability firm to produce profit during a certain period. Also, it describes the level of effective management in doing an activity in operation. Effectiveness management could be seen from the profit generated by sales and investment firms. Ratio profitability is rated very important because, for carry-on life, something firm is in-state profitable. With profit, a firm will find it easier to withdraw capital from outside. The more good ratio profitability, the better describe the ability to create profit (Jantana, 2013).

According to Jantana (2013), Return on Equity is the ratio of profit clean after tax to own capital. ROE is the ratio that measures how much the return earned owner firm (holder shares) for the paid-up capital for a firm. In general, the higher the ROE, the more good position owner's firm so, which will cause a good investor assessment of the firm that causes an increase in the price of stock and value firm. ROE, often called profitability of own capital used to measure the ability firm to produce a profit by taking advantage of the share capital owned firm (Kusumaningtyas & Andayani, 2015).

Leverage

Leverage is a ratio that describes the ability firm to fulfill all its obligations. Leverage is used to evaluate how much much firm capital financed by debt. Leverage is the ability firm to fulfill the debt obligation with several assets owned (Rivandi & Petra, 2021). This leverage ratio compares the whole burden debt firm to equity. In other words, the ratio shows how many of the firm's assets are owned by shareholders share compared with assets owned by creditors (providers debt). If the holder share has many assets, the firm says less leverage. However, if the creditors have the majority of assets, then the firm concerned is said to have a high level of leverage. This leverage ratio helps management and investors understand the level of risk the firm's capital structure Ratio Growth (Grow Ratio) measures the ability to maintain its position in the economy in a growth economy and industry or product market in the place operates.

In a study for measuring leverage, used Debt to Equity Ratio (DER) is the ratio that measures the level of debt to the capital-owned firm. The debt-to-equity ratio can reflect the ability of firms to pay the debt with their capital. This ratio is also capable of evaluating the ability of firms to use

capital originating from loans in support activity firms, especially for increased profit firms. The more tall debt to equity ratio something a firm, the more tall the debt-owned firm because of that, firms pay more choose to cover the debt compared to share dividends (Buvanendra et al., 2017).

Firm Size

The firm size describes how big or small something firm is, seen as how a great firm more easily gets funds from investors. The bigger and more easily gets a loan or debt from outside and share capital because usually a firm high rated well enough. The bigger the size firm, the more easy firm to get source funding (Rechiwati, 2020).

Firm Value

Firm value is investors ' perceptions of the level of frequent success firms linked with price stocks (Rivandi, 2018). Firm value is market value because a value firm could give prosperity holder share by maximum if price share firm increase. High firm value Becomes the wish of the holder's stock cause high-value shows prosperity holder high stock too. Riches holder stocks and companies as represented by the market price of shares which are reflected in decision investment, financing, and asset management (Santosa et al., 2022).

Hypothesis and Framework Conceptual

The hypothesis used in a study related to whether or not the variable is free with the variable tied. Design study to prove its profitability and leverage affect the value of the firm with firm size as a moderating variable in food and beverage companies listed on the 2019-2021 IDX so that conducted testing with the hypothesis as follows:

H1: Profitability effect on Firm value.
H2: Leverage effects on Firm value
H3: Firm size moderate positive influence on profitability to firm value.
H4: Firm size moderate negative influence between leverage and value firm.

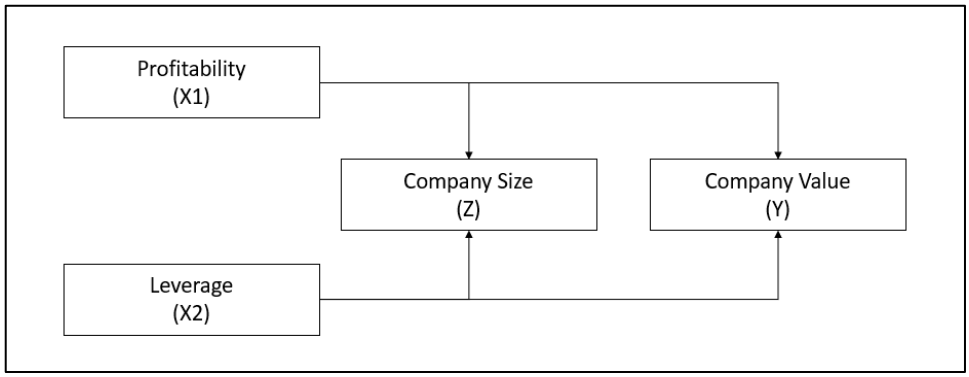

Figure 1. Framework Conceptual

3. Data and Method

The strategy used is strategy study associative. Strategy study associative is a purposeful method for explaining the connection causal and influence between variables through testing hypothesis. In thing, this researcher means use strategy researcher associative because accordance with the goal done that is to know the connection between variable X1 (profitability), X2 (leverage) to variable Y (value firm) with size firm as variable moderation in firm food and beverage listed on the Indonesia Stock Exchange.

Researchers also use the quantitative approach because the quantitative method is effective for a type of research that is associative. According to Sugiyono (2018) and Santosa & Hidayat (2014), the quantitative method could interpret as a method based on philosophy positivism. Method this as scientific because it Fulfills the rules of scientific requirement, empirical, objective, measurable, rational, and systematic. Based on the approach, this includes ex-post research, a study of events

to track the factors that caused the problem. This is in the annual financial report of food and beverage listed on the Indonesia Stock Exchange from 2019 to 2021.

The determination sample firm was conducted with method purposive sampling technique. Purposive sampling is a determination sample with gives the criteria that have been determined by the researcher (Sugiyono, 2018). Of the research, this population of as many as 27 sub-sector companies in food and beverage listed on the Indonesia Stock Exchange for 2019-2021. There is a sample of as many 24 firms that meet the third criteria the, with the amount of sample study as much research data.

Variable in a study consisting of three variables independent, one variable dependent, as well as one variable moderation. In research, this independent variable is proxied to corporate social responsibility with information dimensions economics, information dimensions Environment, and Goals conducted. Analyze this data to answer problems by the group so that it will be generated whether or not influence Among variable independent to variable dependent. Data processing in a study this use by computer with Eviews 10 software. Some data types are available for analysis by statistics coherent data time (time series), cross-data time (Cross section), and panel data, combined between time series and cross-section data. The panel data regression model in the study this formulated with equality as follows:

$$\mathbf{Y = \alpha + \beta 1\ Prof + \beta 2\ Lev + \beta 3\ Size*Prof + \beta 4\ Size*Lev + \varepsilon}$$

where:

Y = Firm Value
A = Constant
B = coefficient Regression
X1 = Profitability
X2 = Leverage
X3 = moderation of firm size on profitability
X4 = moderation of firm size on leverage
e = Error term

4. Results

Analysis Statistics Descriptive

Analysis descriptive describes the characteristics of the variables studied. This picture is useful for knowing conditions and population useful research in the discussion so that we could see the value lowest (minimum), value highest (maximum), the average value (mean), and value standard deviation (standard deviation) of the variables studied. Analysis result descriptive could is known through the following table:

Table 1. Results of Descriptive Statistics

	Profitability	Leverage	Firm Size	Firm Value
Mean	0.158091	1.119901	28.56723	2.639445
Medium	0.136760	0.754650	28.07998	2.606720
Maximum	1.666380	13.55113	32.82039	7.908140
Minimum	0.000920	0.121670	25.39137	0.336870
Std. Dev.	0.204170	1.738042	1.600005	1.672638
Skewness	5.965687	5.641699	0.745240	0.781536
Kurtosis	44.55874	39.65909	3.445289	3.351181
Jarque-Bera	5374,773	4229,711	6.956962	7.378748
Probability	0.000000	0.000000	0.030854	0.024988
Sum	10.908229	77.27319	1971.139	182.1217
Sum Sq. Dev.	2.834601	205.4138	187.3820	190.2448

Source: Processed Data (2022)

Based on Table 1. descriptive analysis test results:

1. Profitability (X1) the minimum value is 0.000920 times, PT Sekar Earth Tbk, the maximum value is 1.666380 times, namely PT Prashida Aneka Niaga Tbk, with the average value is 0.158091 and the standard deviation of 0.204170.
2. Leverage (X2) has a minimum value of 0.121670 times, namely PT Campina Ice Cream Industry Tbk, a maximum value of 13,55113 times, namely PT 48 Prashida Aneka Niaga Tbk with an average value is 1.119901 and the standard deviation of 1.738042.
3. Moderating variable, firm size (Z) has a minimum value of 25.39137 times, namely PT Sentra Food Indonesia Tbk, a maximum value of 32.82039 times, namely PT Indofood Sukses Makmur Tbk with an average value is 28,56723 and the standard deviation of 1.60005.
4. Variable (Y) a minimum value is 0.336870 times, namely PT Budi Starch & Sweetener Tbk, and a maximum value is 7.908140 times, namely PT Sariguna Primatirta Tbk with an average value is 2.639445. The standard deviation was 1.672638 companies PT Paramita Bangun Sarana Tbk in 2020-2021 and PT Meta Epsi Tbk in 2019-2021.

Classic Assumption Test

Normality Test

The normality test aimed to determine whether the residuals, confounding variables, or other study data had a normal distribution. If the data are normally distributed, or nearly so, a good regression model can be used. Jarque-Bera with histogram normality test is a statistical test used to evaluate normality. Normality test results can be shown in the following figure:

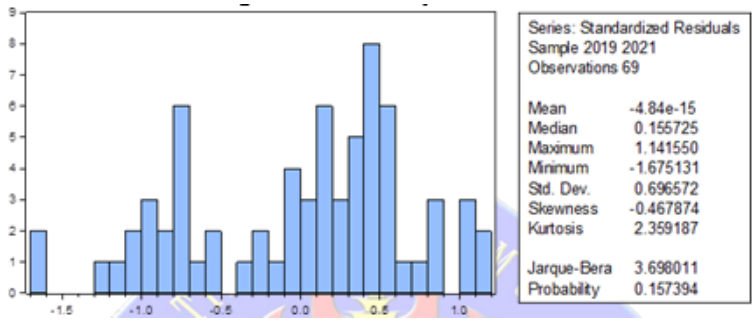

Figure 2. Normality Test Result

Figure 2 shows that the Jarque-Bera value (JB statistic) follows a Chi-square distribution with two df (degree of freedom). Based on the results of the image above, the Jarque-Bera value = 3.698011 and the Probability value = 0.157394. The Jarque-Bera value is compared with Chi-square 2 df at a significance level of 5% = 5.991, indicating the Jarque-Bera value is smaller than the significance level, and the Probability value = 0.157394 is greater than alpha 0.05. It can be concluded that the statement of the assumption of normally distributed residuals is fulfilled.

Multicollinearity Test

This test aims to determine whether the independent variables (independent) in a regression model have a high or perfect correlation. The regression model is considered good if there is no correlation between the variables. The relationship between the independent and dependent variables will be disturbed if there is a high correlation between the independent variables.

Table 2. Multicollinearity Test Result

	Profitability	Leverage	Firm Size	Firm Value
Profitability	1.0000000	0.585037	-0.026653	0.345115
Leverage	0.585037	1.0000000	-0.067161	0.036696
Firm Size	-0.026653	-0.067161	1.0000000	-0.133929
Firm Value	0.345115	0.036696	-0.133929	1.0000000

Source: Processed Data (2022)

Based on the results of Table 2, it shows that there is no correlation between the coefficients of the independent variables (free). This result can be seen from the absence of coefficients between variables greater than 0.8 or close to 1. So, this regression model is free from multicollinearity problems.

Heteroscedasticity Test

The heteroscedasticity test is conducted to test whether, in a regression model, there is an inequality of variance and residuals from one observation to another observation. Researchers have limitations in the Eviews 10 used to see whether there is a heterogeneity problem by looking at the probability of each independent variable. A good regression model is homoscedasticity, or there is no heteroscedasticity. Heteroscedasticity test results can be shown in the following table:

Table 3. Heteroscedasticity Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Firm Value	2.213942	3.125811	0.708278	0.4813
Profitability	1.282404	1.007182	1.273260	0.2075
Leverage	-0.188078	0.143731	-1.308540	0.1953
Size	-0.036729	0.109072	-0.336741	0.7374

Source: Processed Data, 2022

The test results in Table 3 show that the independent variables are profitability, leverage, and firm size above the level (0.05), implying no heteroscedasticity problem.

Autocorrelation Test

This test tests whether there is a correlation between the confounding error in a certain period and the previous period in a linear regression model. A regression mode is said to be eligible if the data is free from autocorrelation. To see if there is an autocorrelation problem, the researcher will use the Durbin-Watson value listed in the regression model and then compare it with the upper Durbin-Watson and lower Durbin-Watson values. The results of the Autocorrelation Test can be shown in the following table:

Table 4. Autocorrelation Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Firm Value	5.702316	5.227565	1.090817	0.2794
Profitability	5.717054	1.455642	3.927514	0.0002
Leverage	-0.514688	0.214115	-2.403798	0.0191
Size	-0.118677	0.182511	-0.650250	0.5178

Source: Processed Data (2022)

The results of Table 4 show that the Durbin-Watson Statistic value is 1.702447 with the number of samples (n = 69) and the number of independent variables as much as 3 (k = 3) and = 0.05. The value of dl = 1.5205 value of du = 1.7015. While the value of 4 minus the lower limit (4 – dU) of 2.2985. From the results above, it can be seen that the DW value is between the values of dU and 4 – dU, namely 1.7015 < 1.7024 < 2.2985. So the conclusion shows that it is free from correlation problems.

Analysis Panel Data Selection

Chow test

Chow test was used to choose a regression model best Among *Common Effect Model* (CEM) with *the Fixed Effect Model* (FEM). The results of the Chow Test are as follows:

Table 5. Chow Test Results

Effects Test	Statistics	df	Prob.
Cross-section F	12.2078	(22.43)	0.0000
Cross-section Chi-square	136.6497	22	0.0000

Based on the Chow test results in Table 5 shows that value the probability of the chi-squarecross-section is more small compared value significance of 0.0000 < 0.05. With thereby, then, H0 is rejected, and H1 is accepted. So the regression model, while the right one is used in a study, is the *FixedEffect Model* (FEM).

Hausman test

The Hausman test was used to choose a regression model best Among the *Fixed Effect Model* (FEM) with *Random Effect Model* (REM). The result of the Hausman Test is as follows:

Table 6. Hausman Test Results

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Cross-section Random	6.874433	3	0.0760

Source: Processed Data (2022)

The Hausman test results in Table 6 show that the value of more random cross-sectionprobability is big compared to the value of 0.0760 > 0.05. With thereby, then, H0 is accepted, andH1 is rejected. So that the regression model, while the right one is used in a study, is *Random EffectModel* (REM).

Lagrage Multiplier test

LM test is used to choose a regression model best Among *Random Effect Model* (REM) with *Common Effect Model* (CEM). The results of the LM Test are as follows:

Table 7. Lagrange Multiplier Test Results

null (no rand. effects) Alternative	Cross-sectionone-sided	Period one-sided	Both
Breusch-Pagan	39,53166	0.731289	40.26294
	(0.0000)	(0.3925)	(0.0000)
Honda	6.287420	-0.855154	3.841192
	(0.0000)	(0.8038)	(0.0001)
King-Wu	6.287420	-0.855154	0.996274
	(0.0000)	(0.8038)	(0.1596)
GHM	--	--	39,53166
	--	--	(0.0000)

Source: Processed Data (2022)

Based on the Hausman test results in Table 7, the value Breusch-Pagan probability is smaller than the significance of 0.0000 > 0.05. Thereby, H0 is rejected, and H1is accepted, so the appropriate regression model used in a study is the *Random Effect Model* (REM).

Selection of Panel Data Regression Model

In conclusion, the selection of the panel data regression model to be used in analyzing more continued research on testing that has been used:

Table 8. Results of Testing Conclusions

No	Method	Test	Results
1	Chow test	*Fixed Effect Model vs. CommonEffect Model*	*Fixed effects model*
2	Hausman test	*Fixed Effect Model* vs. *Random effectmodel*	*Random effects model*
3	LM test	*Random Effect model* vs. *CommonEffect model*	*Random effects model*

Panel Data Result

Table 9. Random Effect Model

Variables	Coefficient	Std. Error	t-Statistic	Prob.
The Nile. Firm	-2.673878	9.0898802	-0.294162	0.7696
Profitability	-53.26662	25.21698	-2.112331	0.0386
Leverage	12.06710	5.981327	2.017463	0.0479
Size	0.181913	0.326784	0.556678	0.5797
Size*Prof	2.070800	0.910541	2.274252	0.0264
Size*Lev	-0.447651	0.214256	-2.089333	0.0407

Source: Processed Data (2022)

Based on the results of panel data regression in Table 9, then obtained the equation model as follows:

Y : -2.6738 -53.266Pro + 12.0671Lev + 2.0708Size*Pro - 0.4476Size*Lev + e

1. The constant value of -2.6738. This thing shows that if the variable Profitability (X1), Leverage (X2), Moderating 1 (X3), and Moderating 2 (X4), then the value constant value firm amounted to 2.6738.
2. The coefficient value variable profitability (X1) is -53,2666. This value shows an independent relationship between profitability and firm value. This thing contains meaning for every enhancement in profitability as big as one unit will cause a decline in value firm amounted to 53,26662.
3. The coefficient value of the leverage variable (X2) is 12,06710. This value shows the existence unidirectional relationship between leverage and value firm. This thing contains meaning for every increased leverage by one unit will cause an increased value firm of 12,06710.
4. Coefficient Value interaction Among size moderating firm _ profitability to value firm (X3), with a coefficient of 2.070800. This value shows to positive effect significanceto the value of a firm. This result means that existence positively influences size in moderately influences profitability to firm value.
5. Coefficient Value interaction moderate leverage on value firms (X4), with a coefficient of -0.447651. This value shows the effect of negative significantly on the value firm. This result means that the existence of influences negative (weakening) size firm could moderate leverage against a value firm.

Hypothesis Test

Coefficient Test Determination (R^2)

Test this aim to measure how far the model's ability to explain variables is dependent. The result shows that the results obtained from the coefficient of determination (R^2) test are 0.317203 or 31.7%. This value means that profitability and leverage variables affect firmvalue. At the same time, the remaining 68.3% is influenced by other variables not listed in this study's panel data regression model. Test simultaneous or F test aims to tell whole independent variables contained the influential model by together or called simultaneous to variable dependent. Based on the simultaneous results (Test F), shows that the F value counts more big table f value (7.318063 >

2.515) with a value probability more small value significance (0.000018<0.05). So, profitability, leverage, moderation size firm on profitability, and moderation size firm on leverage take to effect positive and significant to value firm.

Partial Test (T-Test)
This test is carried out to measure the presence and absence of the influence of independent variables independently artificial p (individual) to the dependent variable.

Table 10. Partial Test Results (t-Test)

Variables	Coefficient	Std. Error	t-Statistic	Prob.
Firm Value	-2.673878	9.0898802	-0.294162	0.7696
Profitability	-53.26662	25.21698	-2.112331	0.0386
Leverage	12.06710	5.981327	2.017463	0.0479
Size	0.181913	0.326784	0.556678	0.5797
Size*Prof	2.070800	0.910541	2.274252	0.0264
Size*Lev	-0.447651	0.214256	-2.089333	0.0407

Source: Processed Data (2022)

1. Profitability (X1) to firm value (Y) shows a coefficient of -53.26662 with a probability value smaller than the significance value (0.0386 < 0.05), so it can be concluded that profitability harms firm value.
2. Leverage (X2) on firm value (Y) shows a coefficient of 12.06710 with a probability value smaller than the significance value (0.0479 < 0.05), so it can be concluded that leverage hasa positive effect on firm value.
3. Moderation of firm size on profitability (X3) to firm value (Y) shows a coefficient of 2.070800 with probability value < significance value (0.0264 < 0.05), so it can be concludedthat firm size variable can moderate the relationship between profitability and firm value positively.
4. Moderation of firm size on leverage (X4) on firm value (Y) shows a coefficient of -0.447651with probability value < significance value (0.0407 < 0.05), so it can be concluded that firmsize variable is able to negatively moderate the relationship between leverage and firm value.

5. Discussion

Influence profitability on firm value.
Based on the results of the t-test, the t-count value is smaller than the t-table (-2.112331<1.99773), with a probability level smaller than the negligent level (0.0386 <0.05). So profitability significantly negatively affects firm value (PBV) in food and beverage companies listed on the 2019-2021 IDX. This analysis shows that greater profits obtained from a firm do not guarantee an increase in the value of a firm. Based on the study's results, there is a significant influence between the profitability variables on firm value, indicating that the firm has been effective and efficient in using equity so that the firm can give confidence to shareholders regarding dividend payments. Thus, companies can increase productivity to obtain greater profits. The results of this study do not support Annisa & Chabachib (2017) and Aji & Atun (2019), stating that profitability positively affects firm value.

Influence leverage on firm value
Based on the results of the t-test, the value shows that the t-count is greater than the t-table (2.0174 >1.99773) with a probability level smaller than the negligent level (0.0479<0.05), it can be concluded that leverage has a significant positive effect on firm value. Debt also increases profitability and will increase firm value. High profitability will make companies try to reduce their taxes by increasing the the debt ratio or leverage. Companies can take advantage of debt as long as there are benefits so that higher debt will reduce tax payments. Debt use will increase the firm's value by paying attention to a certain point. In addition, debt will reduce the conflict between shareholders and management. Debt will also reduce the excess cash flow in the firm, thereby reducing the possibility of waste made by management. If viewed from the principle of supply and demand, if the firm increases funding by issuing new shares, the shares offered will increase so that

the share price will decrease. This study supports the results of previous studies conducted by Handriani & Robiyanto (2018), Yanti & Darmayanti (2019), and Aldi et al. (2020), which state that leverage has a positive effect on firm value.

Effect of profitability on firm value with firm size as the moderating variable
Based on the results of the t-test value indicates that the t-count is greater than the t-table (2.2742 > 2.1009) with a probability level smaller than the negligent level (0.0479 < 0.05), it can be concluded that firm size can positively moderate the relationship between profitability and firm value. The large size of the firm attracts investors to buy the firm's shares; the more investors who buy the shares, the higher the stock price reflects the firm's value. Large firm size is considered capable of generating large profitability; large firms have more advantages than small companies to dominate the market and get a high level of profitability. This finding is a motivating factor for investors to buy shares of a firm (Yanti et al., 2020). This study supports the results of previous research conducted by Risa (2021), which states that firm size can positively moderate the relationship between profitability and firm value.

Effect of leverage on firm value with firm size as the moderating variable
Based on the results of the t-test, it shows that t is smaller than the t table (- 2.089333 > 2.10092) with a probability level smaller than the level of neglect (0.0407 <0.05), it can be concluded that firm size can negatively moderate the relationship between leverage and firm value. With a high firm size, the firm has high total assets, which can make it easier to get operational costs in the form of debt, so it is estimated that firm size can increase leverage, resulting in high firm risk. This result can be a negative signal for the market, where investors will respond negatively because of high leverage. Conditions like this will be responded to by a decrease in the firm's stock price, which causes a decrease in the firm's value. The results of this study do not support previous research conducted by Magdalena et al. (2016), which concludes that firm size cannot moderate the relationship between leverage and firm value.

6. Conclusion

Based on the results of the tests and discussions carried out in the previous chapter regarding the effect of profitability and leverage on firm value with firm size as a moderating variable in food and beverage companies listed on the Indonesia Stock Exchange for the 2019-2021 period. The conclusions from this research are: 1) The profitability variable (ROE) has a negative and significant effect on the firm's value in food and beverage companies; this shows that the greater the profits obtained from a firm does not guarantee an increase in the value of a firm. 2) The leverage variable (DER) positively and significantly affects firm value in food and beverage companies. The firm can manage debt well. Companies can take advantage of debt if there are benefits so that the higher debt will reduce tax payments. In addition, debt will reduce the conflict between shareholders and management. It will also reduce the excess cash flow in the firm to reduce the possibility of waste committed by management. 3) Firm size variable can positively moderate (strengthen) the relationship between profitability and firm value. This result proves that the larger the size of the firm, the greater the probability that the benchmark value of the firm also increases. 4) Firm size variable can negatively moderate (weak) the leverage relationship to firm value. This finding shows that the size of the firm can be seen from the total assets; the firm with total assets with large assets with dominant components in receivables and inventories cannot, of course, pay dividends (retained earnings) because assets accumulate in receivables and inventories. The firm is more likely to maintain profit than to distribute it as a dividend, which can affect the value of the firm.

Recommendation

Based on the conclusion above, then could put forward some suggestions that can be used as ingredient considerations that are for investors; it is hoped that they not only notice profitability, leverage, and firm value only however could notice information size firm as part of the performance firm so that thing they could make as consideration for take decision invest.

For management, a Manager firm must consider opportunity investigation, something firm in the future come with compare relative to projections internal funding sources for taking policy about application profitability and leverage against value firm with size firm as variable moderation, so that can maximizing value firm as destination main. The researcher is next expected more deepen the theory about DER and ROE, adding period research and research variables to finance others who have more influence big to value firm as well as expected researcher next can add reference study.

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