THE EFFECT OF FIRM SIZE AND WORKING CAPITAL TURNOVER ON FIRM VALUE MEDIATED BY PROFITABILITY AND INTELLECTUAL CAPITAL AS MODERATING VARIABLE IN FOOD AND BEVERAGE COMPANIES LISTED ON IDX IN 2017-2021

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ABSTRACT

This research aims to determine the effect of firm size and working capital turnover on firm value mediated by profitability and intellectual capital as moderating variables in food and beverage companies listed on the Indonesia Stock Exchange in 2017-2021. The population in this research is 37 food and beverage companies listed on the Indonesia Stock Exchange in 2017-2021. This research used purposive sampling as the sampling technique, so 21 companies were obtained as the research samples. The data analysis used in this research is moderated regression analysis and the Sobel test with Statistical Program for Social Science (SPSS) 26. The results showed that firm size had no effect on firm value, working capital turnover had no effect on firm value, profitability had a positive effect on firm value, firm size had a positive effect on profitability, working capital turnover had a positive effect on profitability, firm size had an indirect effect on firm value through profitability, working capital turnover had an indirect effect on firm value through profitability, intellectual capital moderates the effect of firm size on profitability, intellectual capital moderates the effect of working capital turnover on profitability, intellectual capital does not moderate the effect of firm size on firm value, intellectual capital does not moderate the effect of working capital turnover on firm value, and intellectual capital do not moderate the effect of profitability on firm value.

Keywords: *Firm Size, Working Capital Turnover, Intellectual Capital, Profitability, Firm Value*

INTRODUCTION

The development of the business world has resulted in increased business competition, so companies are required to be able to maintain excellence and maximize the value of the company in order to maintain its existence. An increase in the value of a company shows that the prosperity and welfare of its shareholders also increase (Lestari, 2017). Therefore, the more investors will invest in the company; the company will have more capital to fund its operational activities.
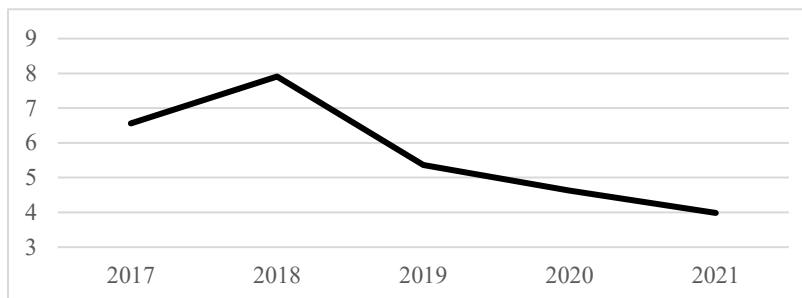
Food and beverage companies are one of the mainstay manufacturing sectors that make a large contribution to the country's economic growth. In the second quarter of 2021, food and beverage companies became the largest contributors to the non-oil and gas processing industry, reaching 38.42% and contributing to the national gross domestic product of 6.6%. Food and beverage companies are also rated as stable companies that have good productivity.
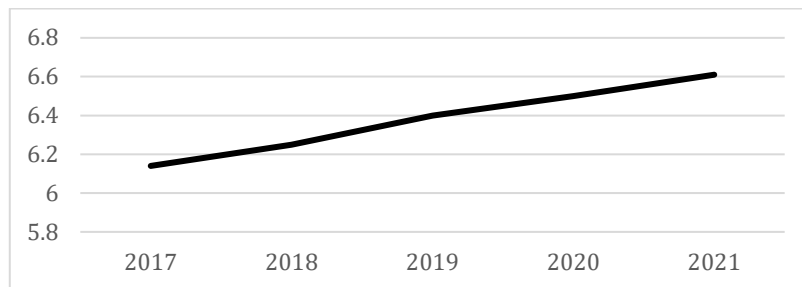
Source: Indonesian Statistical Center

Figure 1. Graph of Contribution of Food and Beverage Companies to National GDP for the 2017-2021 Period

Based on the graph above, it is known that there is an increase in the contribution to the national gross domestic product (GDP) from year to year. It shows that from year-to-year people's demand for the products increases, so the productivity of food and beverage companies also increases.

Source: Indonesia Stock Exchange

Figure 2. Graph of Average PBV Value of Food and Beverage Companies in 2017-2021

Based on Figure 2 above, the value of the company calculated by the ratio of price to book value (PBV) from 2017 to 2021 tends to decrease. The average PBV value of food and beverage companies is inversely proportional to the number of gross domestic products. If the company has productivity that tends to increase, it should be able to give a good signal to the company's external parties that the company has good prospects and opportunities. With this signal, it should be able to help the company to

increase its firm value. But in reality, the signal is not able to increase the value of the company, even if the value of the company actually decreases.

Based on this phenomenon, it can be concluded that the value of the company cannot be determined just by looking at its productivity, so the company must have the right strategy to increase the value of the company. There are two factors that can affect the value of the company, including financial and non-financial factors (Lestari & Wirawati, 2018). These two factors can be a concern for company management to create the right strategy in order to increase firm value.

Firm size is one of the financial factors that are considered capable of influencing the value of the company. Firm size reflects how many assets a company owns. The larger the company, the greater the assets owned, and vice versa. With large assets, it means that the company is developing from time to time, so investors will evaluate it positively, and the value of the company will increase.

In addition to the size of the company, working capital turnover can also affect the value of the company. According to Riyanto (2013), working capital turnover can be interpreted as capital that always rotates in the company as long as the company is still operating. Working capital turnover can describe the effectiveness and efficiency of company management in managing existing working capital. If the working capital turnover rate is high, it indicates that the company has managed its working capital well and efficiently; otherwise, if the working capital turnover rate is low, it indicates that the company is managing working capital poorly.

An increase in firm value can also occur with an increase in company profitability. Profitability is a ratio that is able to describe the company's ability to generate profits by utilizing the company's resources. Good profitability illustrates that the company has good financial performance. Good financial performance can attract investors to invest in the company. The more investors who invest, the company will have more funds to finance the company's operational activities. In addition, with a large number of existing investors, it can increase the company's stock price, which indicates that there is an increase in the value of the company.

Food and beverage companies are one of the sectors that are prioritized for development by the Indonesian government. This is because the food and beverage are a leading sector. The Minister of Industry of Indonesia said that this sector is one of the sectors that is accelerated to adopt industrial technology 4.0, so companies are required to continue to innovate to increase their competitiveness in order to be able to compete at the global level.

The steps that need to be taken by the company are not only by improving quality, productivity, and efficiency throughout the production value chain, but the company also needs to improve the competence of its human resources. For this reason, companies need to pay attention to and increase their intellectual capital (IC) because intellectual capital is considered to be able to help companies improve company performance and company value (Rivandi, 2018).

From the results of supporting data, existing phenomena, and differences in the results of previous research on the background of the problems above, the researcher chose the title **"The Effect of Firm Size and Working Capital Turnover on Firm Value Mediated by Profitability and Intellectual Capital as Moderating Variable in Food and Beverages Companies Listed on IDX in 2017-2021".**

LITERATURE REVIEW

Signaling Theory

Signaling theory explains that companies provide signals in the form of information to parties outside the company. According to Lestari and Wirawati (2018), the information provided by the company describes how the condition of the company has an impact on the continuity of the company. The signal given by the company is used as the basis to assess or change the company's assessment by external parties.

Resource Based Theory (RBT)

This theory explains how companies can manage and utilize their resources as much as possible so that they can create competitive advantages over other companies that are beneficial for the company's performance (Lestari & Satyawan, 2018).

Firm Value

Firm value is a market perception that includes investors, creditors, and other stakeholders regarding the condition of a company (Adrianingtyas, 2019). The value of the company can also be said as the selling value of a company on the basis of the performance and condition of the company. The value of the company can be reflected in the company's share price, which is formed by the demand and supply of the capital market, which reflects the public's assessment of the company's performance.

Profitability

Profitability is a description of the company's ability to generate profits through its capabilities and resources, such as capital, cash, sales, number of employees, and so on. In other words, profitability shows the effectiveness of management in managing the company based on the resulting profits.

Firm Size

According to Widiastari and Yasa (2018), firm size is a scale where companies can be classified based on total assets, total sales, share value, and so on. The size of the company can determine the level of trust from outsiders in the company. This is because the size of the company can be used as an illustration related to the financial capabilities of a company in a certain period (Lestari & Wirawati, 2018).

Working Capital Turnover

In funding their operational activities, companies need funds called working capital. To assess whether working capital has been managed effectively, it can be seen from the working capital turnover. Working capital turnover shows the number of sales that the company can get for every rupiah of working capital it has.

Intellectual Capital

According to Sari et al. (2021), intellectual capital is the form of knowledge, information, and experience possessed by humans, resources, and company organizations that can provide added value to the company and provide a competitive advantage.

Hypothesis Development

The Effect of Firm Size on Firm Value

A company with a large size indicates that the company has large assets, so it will be easier to fund its operational activities. Therefore, the company is considered to have a good opportunity in the future because it is able to continue operating. Based on signaling theory, this is considered to be a positive signal for external parties of the company. With these positive signals, it will attract many investors to invest. With so many investors investing, it will result in an increase in the company's stock price, so that the value of the company will also increase.

H1: Firm size has a positive effect on the firm value.

The Effect of Working Capital Turnover on Firm Value

The high turnover of the company's working capital indicates that the company is able to manage working capital effectively and efficiently. With good working capital management, the company is able to increase sales so that the profits generated also increase. Based on signaling theory, this is captured as a positive signal given by the company. The signal will attract more investors to invest, so the value of the company will increase.

H2: Working capital turnover has a positive effect on the firm size

The Effect of Profitability on Firm Value

High profitability indicates that the company makes a large profit. With the amount of profit generated by the company, it will result in more investors investing, so that the value of the company will increase. This happens because a large profit is used as a good signal for investors, whereas a large profit will allow investors to get profits in the form of a larger dividend.

H3: Profitability has a positive effect on the firm value.

The Effect of Firm Size on Profitability

A large company indicates that the company has large assets as well. With adequate assets, it will make it easier for the company to carry out its operational activities and carry out its business developments so that the company will have the opportunity to generate greater profits.

H4: Firm size has a positive effect on profitability

The Effect of Working Capital Turnover on Profitability

Companies that manage their working capital well, it will make it easier for companies to make greater profits. This is because the company is able to minimize working capital but produce maximum sales.

H5: Working capital turnover has a positive effect on profitability.

The Effect of Firm Size on Firm Value Through Profitability

Large companies show that large assets will make it easier for companies to finance their operational activities so that the company can generate large profits. In accordance with the signaling theory, with a large profit as a positive signal given by the company, it will attract many investors to invest so that the value of the company will increase. This happens because the company is considered to have good prospects and benefit investors for the future.

H6: Profitability is able to mediate the effect of firm size on firm value

The Effect of Working Capital Turnover on Firm Value Through Profitability

Good working capital management is characterized by a high turnover of working capital; it will lead to an increase in the profit generated by the company. This is because the company is able to maximize existing working capital to increase sales. With an increase in sales, it will result in an increase in the company's profit. This positive signal in the form of a large profit will attract investors to invest in the company so that the value of the company increases.

H7: Profitability is able to mediate the effect of working capital turnover on firm value.

The Effect of Firm Size on Profitability with Intellectual Capital as Moderating Variable

Based on resource-based theory, companies are able to gain a competitive advantage by owning, mastering, and utilizing strategic assets, such as human resources. If the company has maximized its human resources, it will make it easier for the company to set new strategies or innovations to manage its assets. With assets that have been managed properly and correctly, it will make it easier for the company to increase company profits.

H8: Intellectual capital is able to moderate the effect of firm size on profitability.

The Effect of Working Capital Turnover on Profitability with Intellectual Capital as Moderating Variable

Companies are required to be able to manage their working capital properly. With good working capital management, the company is able to generate maximum profit. In order for working capital management to be more optimal, well-managed intellectual capital is needed by the company. Well-managed intellectual capital will help companies to continue to innovate so that working capital can be maximized to generate higher profits.

H9: Intellectual capital is able to moderate the effect of working capital turnover on profitability

The Effect of Firm Size on Firm Value with Intellectual Capital as Moderating Variable

Large companies describe that the company has large assets, so the company has a great opportunity to maintain its existence. If there is an increase in human resources in the company, it will help the company in carrying out innovations and good strategies to maintain its existence by utilizing the assets optimally. Therefore, the company will have a good opportunity in the future. Based on signaling theory, with a positive signal like this given by the company, it will attract more investors to invest so that the firm value can increase.

H10: Intellectual capital is able to moderate the influence of company size on company value.

The Effect of Working Capital Turnover on Firm Value with Intellectual Capital as Moderating Variable

Good working capital management will be assessed as a positive signal for investors. This is because the company is considered capable of maximizing its working capital so as to generate maximum sales as well. Therefore, investors will be

interested in investing so that the firm value will increase. Intellectual capital that is managed properly will optimize the management of the company's working capital. With more optimal working capital management, it will increase investors' interest in investing so that the firm value will increase.

H11: Intellectual capital is able to moderate the effect of working capital turnover on firm value.

The Effect of Profitability on Firm Value with Intellectual Capital as a Moderating Variable

Maximum intellectual capital management will help the company in improving its quality and productivity. This is because the company has a well-managed intellectual capital that will produce good ideas or innovations to maximize the quality and productivity of the company. Based on signaling theory, if the company has a large profit, it will increase the number of investors who invest in the company so that the firm value will increase. Companies with maximum productivity and quality, due to well-managed intellectual capital, will generate higher profits. Therefore, more investors want to invest in the company, so that firm value can also increase.

H12: Intellectual capital is able to moderate the effect of profitability on the firm value.

Based on the explanation above, a research model can be drawn as follows:
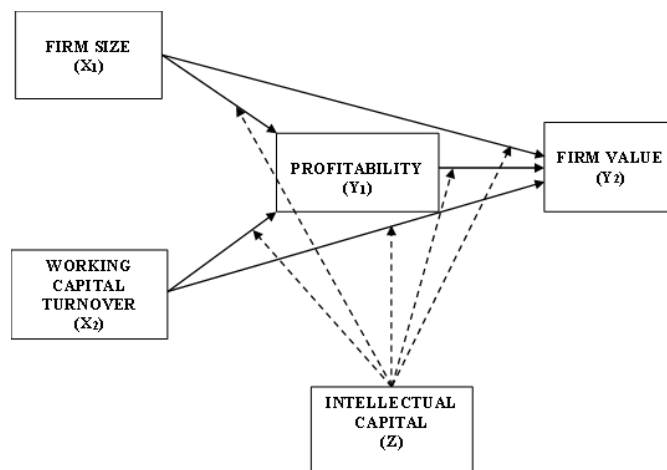
Source: Developed by the authors, 2022

Figure 3. Research Model

RESEARCH METHODS

Data

The population in this study is all food and beverage companies that were listed in the Indonesia Stock Exchange (IDX) in 2017-2021, with a population of 37 companies. This study used a purposive sampling method to choose the sample in. The purposive

sampling method is based on a particular assessment of some characteristics of the sample members adjusted for the purpose of the study. The sample in this study numbered 21 companies. This study uses secondary data obtained from the financial report provided by the companies.

Operational Definition of Variables and Variable Measurements

The dependent variable used in this study is firm value. According to Chandra and Jonnardi (2020), firm value is an investor's view of the company's success rate, which is closely related to the company's share price. In this research, the company's value will be proxied with the price to book value (Agusentoso, 2017).

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

The intervening variable in this research is profitability. According to Christiana and Putri (2019), Profitability is a ratio used to measure a company's ability to generate profits during a period so that profitability can be used as an indicator to assess the company's prospects. In this study, profitability was measured by return on assets with the following formula (Indriyani et al., 2018):

$$\textbf{ROA} = \frac{\text{Earning After Tax}}{\text{Total Asset}}$$

The independent variables in this research include firm size and working capital turnover. Firm size is a scale that can classify companies in various ways, including total assets, market value, and so on (Sari et al., 2021). In line with the research conducted by Widiastari and Yasa (2018), to calculate the size of the company, so it used the following formula:

$$\textbf{Firm Size} = \text{LN (Total Assets)}$$

According to Noor (2017), working capital turnover is a ratio that measures and assesses whether a company's working capital has been managed properly or not. In this research, the turnover of working capital will be calculated using the following formula (Hardiana et al., 2019):

$$\textbf{ROA} = \frac{\text{Sales}}{\text{Working Capital}}$$

The Moderating variable in this research is intellectual capital. Intellectual capital is a company's intangible assets that contribute to creating the company's added value (Muasiri & Sulistyowati, 2021). In this study, intellectual capital was proxied with VAIC^{TM} (Lestari & Satyawan, 2018).

$$\textbf{VAIC}^{TM} = \text{CEE + HCE + SCE}$$

Where:

VACA = Capital Employed Efficiency

VAHU = Human Capital Efficiency

STVA = Structural Capital Efficiency

Data Analysis

This study uses the moderated regression analysis and Sobel test with SPSS to analyze the data. This article provides descriptive statistics to give a portrayal of the data that cover the mean, standard deviation, maximum and minimum values of the data. Descriptive statistics are useful to provide an overview of the distribution and behavior of the sample data (Ghozali, 2016). Before analyzing the coefficient significance, the regression model should be passed the classic assumption test. This is a classic assumption. The test consists of the normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test.

After that, a hypothesis test can be conducted. From the test result, it can be seen the direction of the relationship between the independent variable as well as moderating variable and dependent variable. The results provide path coefficients and the significance level, which is then we can conclude the relationship between independent variables as well as moderating variable and dependent variable. The level of significance used in this study is 5%. Based on the explanation above, a hypothesis can be accepted if sig. value < 0.05.

RESULTS

General Description of Research Variables

The general description aims to show how the trend of the research variables during the research period. It will describe the data derived from the variables. The numbers can be seen in Table 1 as follows:

Table 1. Average Value of Each Variable in 2017-2021

Variables	2017	2018	2019	2020	2021
Firm Size	28.37	28.41	28.49	28.57	28.58
Working Capital Turnover	22.38	24.89	26.01	29.76	30.61
Intellectual Capital	6.16	2.11	2.74	0.71	1.76
Firm Value	5.61	6.99	7.50	4.74	3.34
Profitability	-0.06	0.07	0.12	0.07	0.05

Source: Computed Data

Descriptive Statistical Analysis

The descriptive statistics provide the mean, standard deviation, maximum and minimum value of each research variable. The result of descriptive statistical analysis can be seen in the following table below:

Table 2. Descriptive Statistic Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
Firm Size	105	25.36	32.82	28.48	1.57
Working Capital Turnover	105	-16.14	571.5	18.35	77.12
Intellectual Capital	105	-17.56	90.77	2.69	9.443
Firm Value	105	0.15	42.34	4.83	7.38
Profitability	105	-2.64	0.61	0.05	0.294
Valid N	105				

Source: Computed Data

**Classic Assumption Test**

Classic assumption test was first carried out with the aim of obtaining an appropriate regression model and having unbiased results consisting of normality, multicollinearity, autocorrelation, and heteroscedasticity test.

Normality Test

The normality test aims to test whether the independent variable and dependent variable or both have a normal distribution or not.
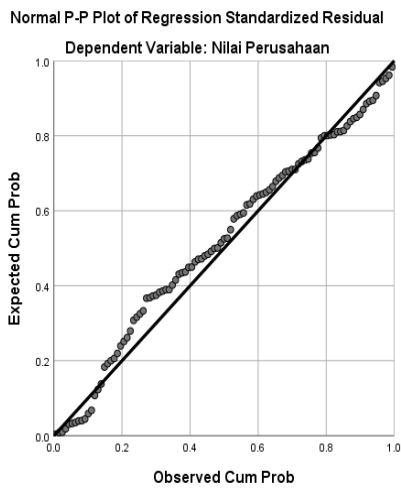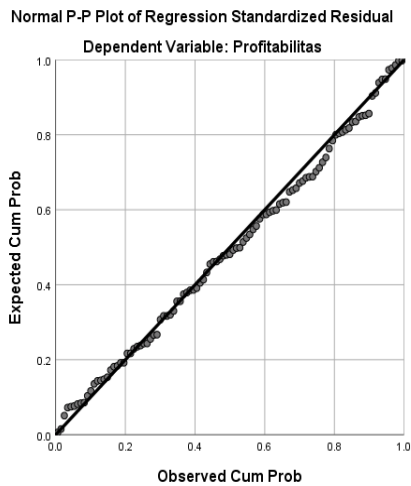
Source: Processed by Researcher, 2022
Figure 3. Normal P-P Plot Graph

Based on Figure 3 above, it can be seen that the data spread around the diagonal line and follows the diagonal line; this indicates that the data is normally distributed.

Multicollinearity Test

The regression model with no multicollinearity has a tolerance value > 0.1 and a VIF value < 10. The results of the multicollinearity test can be seen in the following table:

Table 3. Result of Multicollinearity Test (1)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	.025	.255		.100	.921		
LN(X$_1$)	.268	.122	.187	2.202	.030	.375	2.663
LN(X$_2$)	.383	.147	.228	2.598	.011	.352	2.845
LN(Z*X$_1$)	.296	.141	.267	2.097	.038	.167	6.005

| LN(Z*X$_2$) | .270 | .127 | .272 | 2.130 | .036 | .166 | 6.034 |

Dependent Variable: Profitability

Source: Processed by Researcher,2022

Table 4. Result of Multicollinearity Test (2)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	.581	.598		.971	.334		
LN(X$_1$)	-.109	.173	-.072	-.631	.530	.344	2.905
LN(X$_2$)	-.371	.210	-.210	-1.770	.080	.322	3.106
LN(Y$_1$)	.598	.137	.569	4.365	.000	.267	3.741
LN(Z*X$_1$)	.139	.178	.133	.777	.439	.155	6.458
LN(Z*X$_2$)	.345	.197	.296	1.754	.082	.159	6.274
LN(Z*Y$_1$)	.361	.356	.071	1.016	.312	.928	1.078

Dependent Variable: Firm Value

Source: Processed by Researcher, 2022

Based on Tables 3 and 4 above, it can be seen that all independent variables have a tolerance value greater than 0.1 and a VIF value less than 10. From these results, it can be concluded that there is no multicollinearity in the regression model.

Autocorrelation Test

A good regression model is a model that is free from autocorrelation symptoms. In this study, the autocorrelation test was carried out using the Durbin-Watson method, where the regression model was said to pass the autocorrelation with the criteria $d_U < d < 4-d_U$. The results of the autocorrelation test can be seen in the following table:

Table 5. Result of Autocorrelation Test (1)

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.854[a]	.730	.719	.77180	1.761

Dependent Variable: Profitability LN(Y$_1$)

Source: Processed by Researcher, 2022

In Table 5 above, it can be seen that the value of Durbin Watson (d) is 1,890. This value is between (4-d$_U$) of 2.2483 and (d$_U$) of 1.7517 (d$_U$ < d < 4-d$_U$); therefore, it can be said that in the regression model, there is no autocorrelation.

Table 6. Result of Autocorrelation Test (2)

Model Summary				
Model	R	*R Square*	Adjusted R	Std. Error of	Durbin-

			Square	the Estimate	Watson
	.745[a]	.555	.527	1.05149	2.029
Dependent Variable: Nilai Perusahaan LN(Y$_2$)					

Source: Processed by Researcher, 2022

In Table 6 above, it can be seen that the value of Durbin Watson (d) is 2,029. This value is between (4-d$_U$) of 2.1958 and (d$_U$) of 1.8042 (d$_U$ < d < 4-d$_U$); therefore, it can be said that in the regression model, there is no autocorrelation.

Heteroscedasticity Test

A regression model was said to have no heteroscedasticity if all the independent variables had a significance value > 0.05. The results of the glejser test can be seen in the following table:

Table 7. Result of Glejser Test (1)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.774	.160		4.823	.000
LN(X$_1$)	-.007	.076	-.016	-.096	.924
LN(X$_2$)	-.091	.093	-.164	-.981	.329
LN(Z*X$_1$)	-.029	.079	-.089	-.364	.717
LN(Z*X$_2$)	.052	.089	.143	.588	.558
Dependent Variable: Abs_Res1					

Source: Processed by Researcher, 2022

Table 8. Result of Glejser Test (2)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.111	.331		.335	.738
LN(X$_1$)	.086	.096	.139	.896	.373
LN(X$_2$)	.192	.116	.266	1.653	.101
LN(Y$_1$)	.032	.076	.073	.416	.678
LN(Z*X$_1$)	-.016	.099	-.037	-.160	.873
LN(Z*X$_1$)	.017	.109	.035	.154	.878
LN(Z*Y$_1$)	-.057	.197	-.027	-.288	.774
Dependent Variable: Abs_Res2					

Source: Processed by Researcher, 2022

Based on the table 7 and 8 above, it can be seen that the significance value of each variable is more than 0.5. These results meet the criteria, so it can be concluded that there is no heteroscedasticity in the regression model.

Hypothesis Test

Coefficient Determination (R^2)

The coefficient of determination test is used to measure how much effect the independent variable has on the dependent variable.

Table 9. Result of R^2 (1)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854a	.730	.719	.77180
a. Predictors: (Constant), LN(X_1), LN(X_2), LN($Z*X_1$), LN($Z*X_2$)				
a.	**Dependent Variable: Profitability LN(Y_1)**			

Source: Processed by Researcher, 2022

Based on table 9 above, it can be seen that the coefficient of determination (Adjusted R Square) is 0.719, which means that profitability is affected by the independent variable by 71.9%, while the remaining 28.1% is affected by other variables.

Table 10. Result of R^2 (2)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.745a	.555	.527	1.05149
a. Predictors: (Constant), LN(X_1), LN(X_2), LN(Y_1), LN($Z*X_1$), LN($Z*X_2$), LN($Z*Y_1$)				
b.	**Dependent Variable: Firm Value LN(Y_2)**			

Source: Processed by Researcher, 2022

Based on Table 5.14 above, it can be seen that the coefficient of determination (Adjusted R Square) is 0.527, which means that firm value is affected by the independent variable by 52.7%, while the remaining 47.3% is affected by other variables.

Partial Test (T

-Test)

T-test is a test criterion by looking at the significance value. If the significance value is less than 0.05, it can be concluded that partially the independent variable has a significant effect on the dependent variable.

Table 11. Result of T Test (1)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.025	.255		.100	.921

X_1	.268	.122	.187	2.202	.030
X_2	.383	.147	.228	2.598	.011
Z^*X_1	.270	.127	.272	2.130	.036
Z^*X_2	.296	.141	.267	2.097	.038
Dependent Variable: Profitability					

Source: Processed by Researcher, 2022

Based on the table above, it is known that the relationship between firm size, working capital turnover, and intellectual capital as moderating variables on profitability can be presented in the following equation:

$$Y_1 = 0.025 + 0.268X_1 + 0.383X_2 + 0.270Z^*X_1 + 0.296Z^*X_2$$

Table 12. Result of T-Test (2)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.581	.598		.971	.334
X_1	-.109	.173	-.072	-.631	.530
X_2	-.371	.210	-.210	-1.770	.080
Y_1	.598	.137	.569	4.365	.000
Z^*X_1	.139	.178	.133	.777	.439
Z^*X_2	.345	.197	.296	1.754	.082
Z^*Y_1	.361	.356	.071	1.016	.312
Dependent Variable: Firm Value					

Source: Processed by Researcher, 2022

Based on the table above, it is known that the relationship between firm size, working capital turnover, profitability, and intellectual capital as moderating variables on firm value can be presented in the following equation:

$$Y_1 = 0.581 - 0.109X_1 - 0.371X_2 + 0.598Y_1 + 0.139Z^*X_1 + 0.345Z^*X_2 + 0.361Z^*Y_1$$

Sobel Test

Sobel test was used to test the strength of the indirect effect of the independent variable (X) on the dependent variable (Y_2) through the mediating variable (Y_1). Variables are said to have an effect if the count value is greater than t the table (1.661).

The Effect of Firm Size on Firm Value Through Profitability

Known: a = 0.268, sa = 0.122, b = 0.598, sb = 0.137

$$Z = \frac{ab}{\sqrt{a^2sa^2+b^2sb^2+sa^2sb^2}}$$

$$Z = \frac{(0.268 \ x \ 0.598)}{\sqrt{(0.268 \ x \ 0.122)^2+(0.598 \ x \ 0.137)^2+(0.122 \ x \ 0.137)^2}}$$

$$Z = \frac{0.1602}{\sqrt{0.00107+0.00671+0.00028}}$$

$$Z = \frac{0.1602}{\sqrt{0.00806}}$$

$$Z = \frac{0.1602}{0.0897}$$

Z = 1.786

From the above calculation, the Z value is 1.786, where the value is greater than the $_{table}$ value of 1.661. It shows that profitability (Y_1) is able to mediate the effect of firm size (X_1) on firm value (Y_2). In other words, firm size has an indirect effect on firm value through profitability.

The Effect of Working Capital Turnover on Firm Value Through Profitability

Known: a = 0.383, sa = 0.147, b = 0.598, sb = 0.137

$$Z = \frac{ab}{\sqrt{a^2sa^2+b^2sb^2+sa^2sb^2}}$$

$$Z = \frac{(0.383 \; x \; 0.598)}{\sqrt{(0.383 \; x \; 0.147)^2+(0.598 \; x \; 0.137)^2+(0.147 \; x \; 0.137)^2}}$$

$$Z = \frac{0.22903}{\sqrt{0.00317+0.00671+0.000406}}$$

$$Z = \frac{0.22903}{\sqrt{0.0103}}$$

$$Z = \frac{0.22903}{0.1015}$$

Z = 2.256

From the above calculation, the Z value is 2.256, where the value is greater than the t_{able} value of 1.661. It shows that profitability (Y_1) is able to mediate the effect of firm size (X_1) on firm value (Y_2). In other words, firm size has an indirect effect on firm value through profitability.

DISCUSSIONS

The Effect of Firm Size on Firm Value

The results of the research showed that firm size has a negative and insignificant effect on firm value. The negative sign means that the increase in firm size is likely to reduce the firm value. In contrast, the decrease in the firm size is likely to increase firm value. It is supported by the descriptive analysis, which in 2019 to 2021, the firm size is getting bigger but on the contrary, the firm value is decreasing.

Based on the result, it can be seen that this effect is insignificant. This is because the firm size has not been used as a consideration for investors to invest. Investors tend to pay attention to other factors for their consideration, such as the company's performance and company profits (Khotimah et al., 2019).

According to Cheryta et al. (2017), large companies do not always indicate that companies always have good growth. But in general, large companies also have a greater possibility of experiencing problems than small companies. Large companies are more prone to experience problems such as the act of manipulating the company's

financial statements compared to small companies. This is why the firm size is not used as a consideration for investors to invest.

The Effect of Working Capital Turnover on Firm Value

The results of the research showed that the working capital turnover has a negative and insignificant effect on firm value. A negative sign means that the increase in working capital turnover is likely to reduce the firm value. Whereas the decrease in working capital turnover is likely to enhance the firm value. This result is supported by the trend of data in descriptive analysis, which in 2019-2021, the working capital turnover is higher, while the firm value is decreasing.

According to the result, it can be seen that the effect is insignificant. This is because investors and potential investors in their investment decisions are still focusing on the company's prospects based on the company's financial performance, which can be seen in the level of profit generated by the company (Setyawan et al., 2021).

In general, investors pay more attention to the fundamentals of the company, where investors will do analyses related to the financial condition of a company. Therefore, investors do not mind whether the company has a high or low working capital turnover as long as it is balanced with the company's ability to generate high profits.

The Effect of Profitability on Firm Value

The results showed that the profitability has a positive and significant effect on firm value. The positive effect means that if the company's profitability increases, the firm value will increase, and vice versa. These results are in line with the existing theory, where if the company gives a good signal, it will attract investors to invest. With a high level of profitability of the company, it can be said that the company has good performance and prospects. The signal will increase investors' interest in investing. With so many investors investing, the company's stock price will increase as well as the value of the company will increase.

High profitability will increase the confidence and interest of investors. This is because the company is considered to be able to improve the welfare and prosperity of investors. This increase in welfare occurs because, with a large profit, the dividend distributed by the company to investors will also be greater.

This result is in line with the trend of data that has been described in the descriptive analysis. The graph showed that during the research period, the company's profitability was increasing in 2017-2019. But in 2019-2021, the profitability decreased. While the company's profitability increased in 2019-2021, the firm value also increased. Likewise, in 2019-2021, when the company's profitability declined, the firm value also decreased.

The Effect of Firm Size on Profitability

From the results, it can be concluded that the firm size has a positive and significant effect on profitability. A positive sign means that if the firm size is increasing, the profitability is also increasing, and vice versa. A large company shows that the company has large assets as well. With so many assets owned by the company, it will make it easier for the company to increase productivity and sales, as well as develop its business to generate large profits.

PT. Mayora Indah Tbk (MYOR) is one of the companies which is a big asset. With the big assets that it owns, the company will be able to generate a higher profit in 2021. Even though in the midst of the Covid-19 pandemic that hit the world, the company continues to innovate to increase its profit. It showed that in every condition, with its resource, the company can maintain its business and even continue to develop and generate higher profit.

The Effect of Working Capital Turnover on Profitability

From the results, it can be concluded that the working capital turnover has a positive and significant effect on profitability. The positive sign means that if the working capital turnover is increasing, the company's profitability also increases, and vice versa. The high working capital turnover shows that the company is able to manage its working capital efficiently and effectively. Optimal working capital management can increase company sales so that the profits generated also increase.

Companies can set the right strategies to optimize the management of their working capital. One example of a company that optimizes its working capital is PT. Nippon Indosari Corpindo Tbk. This company sets strategies that result in a decrease in operational costs, such as optimizing existing factories, implementing measurable advertising and promotional strategies, and increasing work productivity. By optimizing its working capital, the company is able to generate a greater profit compared to the previous period.

The Effect of Firm Size on Firm Value Through Profitability

According to the results, it can be concluded that profitability is able to mediate the effect of the firm size on the firm value. The results of this research show that the firm size indirectly affects the firm value through profitability. It is because the companies with large assets have a great opportunity to make greater profits. This is because the company will be able to increase its productivity and develop its business. If the company has achieved maximum profit, in accordance with the signaling theory, this will be a positive signal for the company's external parties, so they will be sure that the

company has good prospects in the future. This trust will attract investors to invest in the company so that the stock price will increase and be followed by an increase in the firm value.

The Effect of Working Capital Turnover on Firm Value Through Profitability

Based on the results, it can be concluded that profitability is able to mediate the effect of the working capital turnover on the firm value. The results showed that the working capital turnover indirectly affects the firm value through profitability. The high working capital turnover indicates that the company is able to manage working capital maximumly. Maximum management of working capital will help the company in increasing its sales. Therefore, the profit generated will also increase.

According to the signaling theory, if the company gives a positive signal in the form of high profits, the company will also get a positive response from external parties of the company, namely, the company gains trust so that many investors are interested in investing in the company. This is what will affect the firm value. With the increase in the company's profit, it will increase the firm value as well.

The Effect of Firm Size on Profitability with Intellectual Capital as Moderating Variable

The result showed that the firm size moderated by intellectual capital has a positive and significant effect on profitability. It can be concluded that intellectual capital strengthens the positive effect of the firm size on profitability. It means that the intellectual capital will increase the magnitude of the effect of firm size on profitability.

The result of this research is in line with resource-based theory, where companies with good intellectual capital management will make the company have a competitive advantage that is able to help the company in managing its assets to achieve a high level of profit. Companies that have large assets, if managed with good quality human resources, the company will be able to continue to maintain smooth operational activities so that the availability of products in the market is maintained. It shows that large assets and managed with reliable human resources will produce good company performance so that the company is able to increase the company's profit.

The Effect of Working Capital Turnover on Profitability with Intellectual Capital as Moderating Variable

Based on the results, it can be seen that the working capital turnover moderated by intellectual capital has a positive and significant effect on profitability. The result shows that the intellectual capital it strengthens the positive effect of working capital

turnover on profitability. It means that the intellectual capital will increase the magnitude of the effect of working capital turnover on profitability.

The results showed that there is efficiency in working capital management, and coupled with good intellectual capital management, it will be able to increase the company's profit. This indicates that the company, in achieving maximum profit, must set the right strategy. The strategies carried out by the company can be in the form of cost control and increasing the competence of its human resources. One example is PT. Siantar Top Tbk. The increase in profit in 2020 occurred because the company made various efforts to manage working capital properly, plus improving the quality of its human resources by conducting continuous training and controlling costs with efficiency and an integrated value chain.

The Effect of Firm Size on Firm Value with Intellectual Capital as Moderating Variable

The results indicate that the firm size, which is moderated by intellectual capital, has an insignificant effect on firm value. It shows that intellectual capital is not able to moderate the effect of firm size on the firm value. This is because intellectual capital has not been used as the basis for market assessment of the company. According to Sunarsih and Mendra (2012), market valuation of a company is based on tangible assets.

The Effect of Working Capital Turnover on Firm Value with Intellectual Capital as Moderating Variable

According to the results, it can be seen that working capital turnover, which is moderated by intellectual capital, has an insignificant effect on firm value. From these results, it can be concluded that intellectual capital is not able to moderate the effect of working capital turnover on the firm value. This is because intellectual capital is still an indicator that is ignored by investors in their investment decisions. In general, investors use two analytical techniques in their investment decisions, namely fundamental analysis and technical analysis. Fundamental analysis is an analysis that investors carry out by paying attention to the financial statements of the company. While technical analysis is an analysis carried out by investors by analyzing market activities using market data, stock prices, and transaction volumes.

The Effect of Profitability on Firm Value with Intellectual Capital as Moderating Variable

The results show that profitability, which is moderated by intellectual capital, has an insignificant effect on firm value. From these results, it can be concluded that

intellectual capital is not able to moderate the effect of profitability on the firm value. This is because, in developing its business, the company still uses conventional methods and is not knowledge-based (Puspita, 2014). This is supported by the fact that in facing competition in the era of industrial technology 4.0, food and beverage companies still focus on conventional business development, such as expanding factories, adding machines, and adding the right partners such as distributors, suppliers, and so on. This fact shows that the company does not develop its business in knowledge by developing its human resources to bring up new innovations and strategies that utilize increasingly developing technology to improve company performance.

CONCLUSION AND SUGGESTION

Conclusions

Based on the results of the research, it can be concluded that the firm size and the working capital turnover have a positive and significant effect on profitability, but the firm size and the working capital turnover have a negative and insignificant effect on firm value. Meanwhile, profitability has a positive and significant effect on the firm value. The firm size and the working capital turnover have an indirect influence on the firm value through profitability. Intellectual capital is able to strengthen the effect of firm size and working capital turnover on profitability, but intellectual capital is not able to moderate the effect of firm size, working capital turnover, and profitability on firm value.

Suggestion

The companies should increase profitability so that the value of the company also increases. This is because the results of the research show that profitability is the variable that has the greatest effect on the firm value. The company's management must set the right strategy so that the company's profitability increases, namely by maximizing the assets and working capital owned by the company and assisted by good intellectual capital owned by the company. Investors are expected to pay attention to the factors that affect the value of the company so that the investments made are considered successful. Subsequent researchers who want to conduct related research it is expected to consider other variables, different objects, and larger research samples so that the results obtained become better.

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