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The Effect of Capital Structure, Sales Growth and Liquidity on Performance with Company Size as Moderation

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Abstract. This study aims to determine and test based on empirical evidence regarding the effect of Capital Structure, Sales Growth and Liquidity with firm size as moderation on Performance. Performance is measured by using Return on Asset. This study uses secondary data sources recorded in S&P Capital IQ. Four hundred ninety-five observations with purposive sampling technique in selecting samples from healthcare companies for Indonesia, Malaysia, Singapore, Thailand, the Philiphines, and Vietnam. For the period 2010 – 2020. The research method is a multiple linear regression model. The results show that Capital Structure and Sales Growth affect performance. This study also indicates that company size as a moderator variable has insignificance for capital structure and sales growth to performance. However, firm size affects the relationship between net liquidity and performance.

Keywords: Capital Structure; Growth; Liquidity; Performance

1. Introduction

2020 is a year with quite a stern test for the people of Indonesia and the whole world. The seventh President of Indonesia conveyed this in a video uploaded by the presidential secretariat on December 31, 2020. This statement provides a broad picture of what is happening globally, including in Indonesia. Some companies experience a decline in performance, cut people's jobs, or go bankrupt in the economy.

In difficult times for many companies, the Healthcare Industry may be one of the industries with a positive financial impact. The world of medicine and hospital services is busy helping many people suffering. Business sustainability remains a priority for all companies in these difficult times.

Citing the 2019 Asean Investment Report, the demand for healthcare in ASEAN countries and the need for investment in the regional healthcare market will increase rapidly in the coming years. This increase was driven by population growth, demographic changes, universal healthcare programs, and an increased incidence of non-communicable diseases.

In 2018, Johnson & Johnson (United States) expanded in Singapore by opening a design laboratory. Chugai Pharma (Japan) initiated a $220 million investment to deploy by 2021 in biopharmaceutical research.

Meanwhile, in 2020, the growth of the Indonesian pharmaceutical industry in the third quarter of 2020 will reach a maximum of around 7 percent. This is because the downward trend in inpatient visits to the hospital in the second quarter of 2020 continued from July to September 2020. This growth was based on the high demand for immunomodulatory drugs and health supplements.

The phenomenon of investment in ASEAN countries is due to the prospect of growing sales. Thus cash flow management for these investments is a critical business that cannot be forgotten apart from realizing reciprocity on these investments, which can be reflected in the excellent performance of healthcare companies.

Researchers aim the study to determine how capital structure, sales growth, and liquidity positively influence performance. Furthermore, the researchers included the moderating variable, firm size, as one of the instruments in the research model to see its effect on performance.

Although there have been many previous studies to determine the factors of the effect of capital structure, sales growth, and liquidity on the company's performance, there are still differences in the study

results. In this study, the researcher used firm size as a moderating variable and in several previous studies, firm size was usually used as a control variable.

Hillier (2021), in his book Fundamentals of Corporate Finance, explains the purpose of financial management is to make money or add value to its owners. Profitability Ratios measure how efficiently the company uses its assets and manages its operations. The focus of this ratio is on net income. (Ross et al, n.d.)

Trade-off theory explains that decision-makers consider and evaluate the costs and benefits of using debt or capital plans. Planned considerations involve balancing marginal costs and benefits in a firm's financial capital structure.According to Modigliani and Miller (Frank & Goyal, 2008), adding a preposition of tax costs and creating debt benefits derived from tax benefits does not compensate for debt cost, which results in extreme predictions in testing the effects of testing the theory.

Myers (1984) then criticized the Tradeoff theory with the Pecking Order theory, giving an opinion on the use of the Trade-Off Theory by the company must have a target of debt to value ratio and gradually move to the target. The target is the balancing of the debt tax ratio and bankruptcy costs.

This prediction was also mentioned by Fama & French (2002) in their research which tested the Trade-Off Theory and Pecking Order Theory. Prediction is; (1) In referring to bankruptcy costs, companies with larger ones have a large amount of leverage (2)Companies with diverse incomes have a small amount of leverage.

Frank & Goyal (2008) explain their predictions in Static Order Theory about profitability. Static Trade-off Theory predicts that companies with higher profits will have high debt values.

Frank & Goyal (2008) explains the Pecking Order theory where companies in their business show a preference in choosing funding sources. This theory states that business organisations' preferred funding source is income from undistributed profits, debt, and equity funds.

Their research (Chandra et al., 2019) tries to find a relationship between capital structure and profitability. Capital structure has a significant positive effect on profitability. This finding supports the trade-off theory, which states that firms tend to go into debt to benefit from tax deductions from interest expenses. With a tax reduction, the company's profitability will increase. However, several conclusions were drawn in the study by Qayyum & Noreen (2019a), which tested the capital structure with three profitability ratios. ROA is negatively correlated with leverage.

H1: Capital Structure has a Positive Effect on Performance Firm's Growth

According to Barton (Deitana, 2011) the ability to maintain a company's profitability is influenced by the rate of change in growth. Companies with high sales growth will represent an increasing revenue picture so that sales growth can predict the company’s success. Sales growth is also an indicator of the demand and competitiveness of companies in an industry.

According to Subramanyam, sales growth is an analysis of trends in sales by segment that is useful in assessing profitability. Sales growth is often the result of more factors, including changes in price, volume, acquisitions or divestments, and exchange rates (Subramanyam, n.d).

According to Coad, in his research, he tried to find empirical evidence from the "Growth of the fitter" principle with three growth variables measured as employment rate, value-added and sales growth for their effect on the profit rate.

In the study by Liu, the research conclusions related to sales growth are summarized in two aspects. First, the financial performance of China's agricultural issuers is in a fluctuating downward trend. Second, the rate of sales growth can improve financial performance (Liu et al., n.d.). Companies listed on the stock exchange must pay attention to the relationship between sales revenue and the cost of goods sold, where increased sales growth can be achieved by increasing product volume or selling price. The same result was also obtained by Dakic. The results showed that sales growth had a significant positive effect on profitability in the food processing industry (Dakić et al., n.d).

However, the research that studied pharmaceutical companies in Indonesia by Lim & Rokhim (2020a) 2020 and Pardanawati (2021a) in a study that examined consumer goods companies showed different results. Lim & Rokhim concluded a negative relationship between sales growth and the three dependent variables (ROA, ROE, and EPS).

H2: Sales Growth has a positive influence on performance

Companies can have excessive liquidity because liquid assets tend to generate low returns. Excessive liquidity can hurt profitability. Two ratios that measure the quantity of liquidity are the Current Ratio and the Quick Ratio. (Ross et al, n.d.)

Liquidity management includes the planning and control of current assets and current liabilities in such a way as to eliminate the inability to meet short-term liabilities. This, on the one hand, avoids overinvesting in assets. (Ross et al, n.d.)

Eljelly (2004) explains that the effect that the company directly receives is its profitability more directly in the form of an increase in the company's need to borrow debt from external parties to accommodate it. Working capital requirements and cash gaps.

According to Jensen & Meckling, an agency relationship is a contract in which one or more persons (principals) employ another person (agent) to perform some services on their behalf, which involves delegating some decision-making authority to agents. Principals and agents can seek the maximum value of something, in this case, for example, liquidity and profitability information. Hence, there is a good reason why agents will not always act in the principal's best interests (Jensen et al., 1976).

In Vieira's research, higher liquidity can result in increased problem agency between managers and shareholders, as managers tend to invest more in projects that strengthen their position in the company than in projects that contribute to increase company profitability.

The research of Alarussi & Alhaderi (2018) and found in 120 samples of companies with various industries, the study did not find a significant relationship between liquidity and profitability.

However, different results were obtained in the study of Samo and Morad. This study examines liquidity on the profitability of companies in the textile industry and concludes a relationship between liquidity and profitability in one sector. These results are in line with research in the Pharmaceutical industry by Lim & Rokhim (2020a), which concludes a strong relationship between profitability and liquidity.

H3: Liquidity has a positive effect on performance

Firm size can moderate the capital structure in its influence on firm performance. Research by (Ibhagui & Olokoyo, 2018) shows the positive impact of leverage on company performance in companies with small and large company sizes. The positive effect is mostly more substantial in small firms for leverage ratios on firm performance.

H4: Firm size strengthens the relationship between capital structure and performance

Sales dynamics are often used as a proxy for growth. In a study by (Albulescu et al., 2021), large companies recorded higher growth rates. Performance helps automotive companies to develop and increase company sales. Company size is an essential factor for the growth of companies in the automotive industry of the Timis region of Romania. In addition, size is more critical for companies growing less quickly.

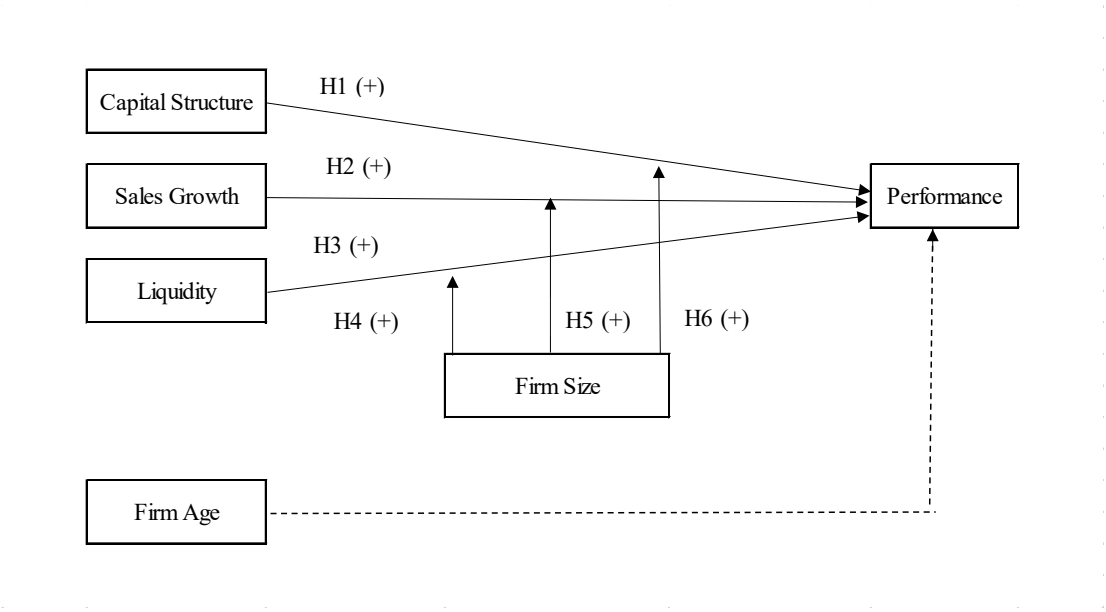
H5: Firm size strengthens the relationship between sales growth and performance

In a study by (Dalci et al., 2019) which tried to find the effect of firm size as a moderating variable of liquidity and profitability, it was found that the smaller the firm size, the negative impact of liquidity on ROA becomes more vital for the firm.

H6: Firm size strengthens the relationship between liquidity and performance

Based on the hypotheses above, the conceptual framework of the research can be formulated in figure 1 as follows.

Figure 1
Research Model



Source: Apriliansyah (2022)

2. Methods

The data of this study were taken from the S&P Global Market Intelligence website in financial information reports from 2010 to 2020. The data is processed quantitatively. This analysis is carried out using a way of analysing a problem that is realised with quantitative data. The information that has been obtained is then summarized as a dataset and processed by using statistical applications (SPSS 24)

This study uses a purposive sampling method where the researcher chooses to use indicators that have been adjusted to the limitations and objectives of this study. The following are the criteria for the data to be sampled:

1. A publicly listed company officially registered in 6 ASEAN countries, namely Indonesia, Malaysia, Singapore, Thailand, the Philippines, and Vietnam.
2. Companies from the Healthcare industry that disclose financial statements that independent auditors have audited for the 2010 – 2020 financial year.

This study uses dependent, independent, control and moderating variables. The dependent variable is performance; the independent variable is capital structure, sales growth and liquidity; the control variable is firm age; and the moderating variable is firm size. Their measurements are described in the following section.

Table 1
Variable Measurement

No.	Variable			Measurement
1	Performance	ROA	=	$\frac{Net\ Income}{Total\ Asset}$
2	Capital Structure	DAR	=	$\frac{Total\ Debt}{Total\ Asset}$
3	Sales Growth	SGR	=	$\frac{Sales_t - Sales_{t-1}}{Total\ Asset}$

4	Liquidity	CR	=	$\frac{Current\ Asset}{Current\ Liability}$
5	Firm Size	SIZE	=	*ln Total Asset*
6	Firm Age	AGE	=	*log Age*

Source: Apriliansyah (2022)

This study uses multiple regression models to analyze the relationship between the independent and dependent variables. In the first model, the researcher tries to find the relationship between the variables without any moderation with the following equation:

Model 1

$$ROA = \beta_0 + \beta_1 DAR_{it} + \beta_2 SGR_{it} + \beta_3 CR_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \varepsilon_{it}$$

In the second research model, the researcher includes the moderating effect in the regression equation to find its impact on the dependent variable with the following equation:

Model 2

$$ROA = \beta_0 + \beta_1 DAR_{it} + \beta_2 SGR_{it} + \beta_3 CR_{it} + \beta_4 SIZE_{it} + \beta_5 DAR*SIZE_{it} + \beta_6 SGR*SIZE_{it} + \beta_7 CR*SIZE_{it} + \beta_8 AGE_{it} + \varepsilon_{it}$$

3. Result

This study uses public healthcare companies in six ASEAN countries (Singapore, Indonesia, Malaysia, Philippines, Thailand, and Vietnam then used a purposive sampling method to select samples (based on specific criteria) in the 2010-2020 period. Based on the table, it is known that 45 samples that passed according to the criteria determined based on the observation time of 11 years (2010-2020) were described as follows:

Table 2
Sample Criteria

No.	Sample Criteria	Amount
1	ASEAN Healthcare Companies in 2010 - 2020	116
2	Companies with IPO years after 2010	-50
3	Companies with incomplete data in the S&P Capital Pro database	-21
	Chosen as sample	45
	Sample in Total	495

Source: Apriliansyah (2022)

Based on information from the results of descriptive statistical analysis, the number of samples, minimum, maximum, mean, and standard deviation in this study are described in tables 3 and 4 as follows:

Table 3
Descriptive Statistics 1

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ROA	495	-1.029	1.561	0.059	0.142
DAR	495	0.022	1.476	0.338	0.178
SGR	495	-0.989	8.876	0.195	0.749
CR	495	0.243	21.615	2.449	2.231
SIZE	495	9.861	18.872	13.869	1.712
AGE	495	1.079	1.851	1.540	0.163
Valid N (listwise)	495				

Based on table 3, the results of the descriptive analysis test model 1 explain that there are 495 company data. ROA with a minimum value of -1,029 from the company E for L Aim Public Company Limited 2012 had a net loss of 19,728. A maximum value of 1,561 Malaysian Genomics Resource Center Berhad in 2020 had a net income of 58,318. The mean value is 0.059, and the Standard Deviation is 0.142.

SGR with a minimum value of -0.989 from Malaysian Genomics Resource Center Berhad in 2019, a maximum value of 8.876 from E for L Aim Public Company Limited in 2014, a Mean value of 0.195 and a Standard Deviation of 0.747.

Table 4
Descriptive Statistics 2

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
DARxSIZE	495	0.374	19.917	4.701	2.533
SGRxSIZE	495	-13.557	152.514	2.777	10.956
CRxSIZE	495	3.430	260.927	33.442	29.841
Valid N (listwise)	495				

Table 5
Kolmogorov-Smirnov Normality Test Research Model 1

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		495
Normal Parameters[a,b]	Mean	0.000
	Std. Deviation	0.133
Most Extreme Differences	Absolute	0.166
	Positive	0.160
	Negative	-0.166
Test Statistic		0.166
Asymp. Sig. (2-tailed)		.000[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Based on the normality test above, the result of the significant value on the ROE variable using the Kolmogorov-Smirnov test is 0.000. The conclusion is that the data in research model 1 has not been distributed normally because the significance level is not a criterion, which is more than 0.05.

Table 6
Kolmogorov-Smirnov Normality Test Research Model 2

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		495
Normal Parameters[a,b]	Mean	0.000
	Std. Deviation	0.130
Most Extreme Differences	Absolute	0.169
	Positive	0.150
	Negative	-0.169
Test Statistic		0.169
Asymp. Sig. (2-tailed)		.000[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Based on the normality test above, the result of the significant value on the ROE variable using the Kolmogorov-Smirnov test is 0.000. The conclusion is that the data in research model 2 has not been distributed normally because the significance level is not a criterion, which is more than 0.05.

Table 7
Multicollinearity Test of Research Model 1

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0.184	0.081		-2.252	0.025		
	DAR	-0.229	0.041	-0.287	-5.530	0.000	0.663	1.509
	SGR	0.023	0.008	0.120	2.762	0.006	0.949	1.053
	CR	-0.002	0.003	-0.033	-0.646	0.519	0.668	1.497
	SIZE	0.007	0.004	0.081	1.893	0.059	0.972	1.029
	AGE	0.148	0.038	0.170	3.864	0.000	0.921	1.086

a. Dependent Variable: ROA

From the results of multicollinearity testing based on the table above, the independent variable in research model 1 does not have a strong correlation with other independent variables, meaning that it does not have symptoms of multicollinearity in this study. This can be proven by the VIF results on all variables still below 10

Table 8
Multicollinearity Test of Research Model 2

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-0.446	0.196		-2.277	0.023		
	DAR	-0.173	0.369	-0.217	-0.469	0.639	0.008	122.879
	SGR	0.083	0.045	0.438	1.846	0.066	0.031	32.447
	CR	0.074	0.025	1.170	2.921	0.004	0.011	92.487
	SIZE	0.024	0.013	0.286	1.797	0.073	0.069	14.595
	AGE	0.171	0.038	0.197	4.454	0.000	0.886	1.129
	DARxSIZE	-0.005	0.027	-0.082	-0.170	0.865	0.007	135.696

	SGRxSIZE	-0.004	0.003	-0.336	-1.402	0.162	0.030	33.162
	CRxSIZE	-0.006	0.002	-1.213	-3.020	0.003	0.011	93.094

a. Dependent Variable: ROA

In research model 2, experiencing multicollinearity problems which show collinearity with VIF on all variables in research model 2 having values above ten on the variables DAR, SGR, CR, DARxSIZE, SGRxSIZE and CRxSIZE.

Table 9
Glejser Test of Research Model 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.490	0.063		7.827	0.000
	DAR	0.019	0.032	0.030	0.590	0.556
	SGR	0.017	0.006	0.114	2.688	0.007
	CR	0.008	0.003	0.163	3.244	0.001
	SIZE	-0.019	0.003	-0.283	-6.784	0.000
	AGE	-0.125	0.029	-0.182	-4.239	0.000

a. Dependent Variable: ABSRES1

From the above test, it is known that in research model 1, all variables except DAR no longer have heteroscedasticity problems.

Table 10
Glejser Test of Research Model 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.060	0.142		0.425	0.671
	DAR	0.668	0.268	1.092	2.496	0.013
	SGR	0.142	0.033	0.982	4.369	0.000
	CR	0.079	0.018	1.615	4.254	0.000
	SIZE	0.012	0.010	0.196	1.298	0.195
	AGE	-0.121	0.028	-0.182	-4.349	0.000
	DARxSIZE	-0.047	0.020	-1.092	-2.373	0.018
	SGRxSIZE	-0.009	0.002	-0.876	-3.851	0.000
	CRxSIZE	-0.005	0.001	-1.445	-3.792	0.000

a. Dependent Variable: ABSRES2

In research model 2, all variables except the SIZE variable have no heteroscedasticity. The conclusion is that there is a heteroscedasticity problem in this study.

Table 11
Durbin Watson test of Research Model 1

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.357[a]	0.128	0.119	0.133	1.340

a. Predictors: (Constant), AGE, CR, SIZE, SGR, DAR

b. Dependent Variable: ROA

In the table above, it is known that the value of Durbin Watson in research model 1 is 1,340, while the criteria based on Durbin Watson to determine if there is a correlation problem is 1 < DW < 3, which means this study does not have correlational problem.

Table 12
Durbin Watson test of Research Model 2

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.397[a]	0.157	0.144	0.131	1.277

a. Predictors: (Constant), CRxSIZE, SIZE, AGE, SGR, DAR, SGRxSIZE, CR, DARxSIZE
b. Dependent Variable: ROA

In the table above, it is known that the value of Durbin Watson in research model 2 is 1.277, while the criteria based on Durbin Watson to determine if there is a correlation problem is 1 < DW < 3, which means this study does not have correlational problem.

The coefficient of determination test is a test to measure the model's ability to explain variations in the dependent variable. If the adjusted R Square value is more excellent, the greater the ability of the independent variable (independent) to explain the dependent variable in the absence of a standard in assessing the adjusted R Square.

Table 13
Adjusted R Square of Research Model 1

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357[a]	0.128	0.119	0.133

a. Predictors: (Constant), AGE, CR, SIZE, SGR, DAR
b. Dependent Variable: ROA

The results of the coefficient of determination test (Adj. R Square) based on the results of the coefficient of determination test (Adj. R Square) research model 1 explained that the independent variables (Performance, Sales Growth, Liquidity, Company Size and Company Age) had a simultaneous effect on the dependent variable (Performance) of 11.9% while other variables outside this study explain 88.1%.

Table 14
Adjusted R Square of Research Model 2

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.397[a]	0.157	0.144	0.131

a. Predictors: (Constant), CRxSIZE, SIZE, AGE, SGR, DAR, SGRxSIZE, CR, DARxSIZE
b. Dependent Variable: ROA

Adding a new variable in moderating firm size on Performance, Sales Growth and Liquidity in research model 2 adds the Adjusted R Square value to 14.4%. In comparison, 83.6% can be explained further by other variables outside of this study.

The results of the simultaneous effect test help see the effect of the overall variable by looking at the level of significance that must be within a tolerance of 1% or 5%, or 10%. The following are the results of the test for the effect of models 1 and 2:

Table 15
ANOVA of Research Model 1

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	1.268	5	0.254	14.298	.000[b]
	Residual	8.675	489	0.018		
	Total	9.943	494			

a. Dependent Variable: ROA

b. Predictors: (Constant), AGE, CR, SIZE, SGR, DAR

Research model 1 has a significance of 0.000, which is smaller than 0.01, which means that the capital structure, sales growth, liquidity, firm size, and age together influence performance.

Table 16

ANOVA of Research Model 2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.566	8	0.196	11.353	.000[b]
	Residual	8.377	486	0.017		
	Total	9.943	494			

a. Dependent Variable: ROA

b. Predictors: (Constant), CRxSIZE, SIZE, AGE, SGR, DAR, SGRxSIZE, CR, DARxSIZE

Model 2 has a significance of 0.000, which is smaller than 0.01. This means that the capital structure, sales growth, liquidity, firm size, age, and moderation from firm size to capital structure, sales growth, and liquidity influence performance.

The t-test is used to conclude the significance of the independent variables individually on the dependent variable. The t-test has a significance level that represents the value. The hypothetical model can be accepted if the slope direction is appropriate and the significant significance level. The tolerance limit for the significance level is 1% or 5%, or 10%.

Table 17

T-Test of research model 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.184	0.081		-2.252	0.025
	DAR	-0.229	0.041	-0.287	-5.530	0.000
	SGR	0.023	0.008	0.120	2.762	0.006
	CR	-0.002	0.003	-0.033	-0.646	0.519
	SIZE	0.007	0.004	0.081	1.893	0.059
	AGE	0.148	0.038	0.170	3.864	0.000

a. Dependent Variable: ROA

The capital structure proxied by the DAR variable has a negative coefficient value and a significance of 0.000 to the performance proxied by the ROA variable with an alpha significance criterion of 1%.

Sales growth proxied by the SGR variable has a positive coefficient value and a significance of 0.006. Performance is proxied by the ROA variable with an alpha significance criterion of 1%.

Liquidity proxied by the CR variable has a negative coefficient value and a significance of 0.519. Performance is proxied by the ROA variable with an alpha significance criterion of 10%.

Table 18

T-Test of research model 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.446	0.196		-2.277	0.023
	DAR	-0.173	0.369	-0.217	-0.469	0.639

SGR	0.083	0.045	0.438	1.846	0.066
CR	0.074	0.025	1.170	2.921	0.004
SIZE	0.024	0.013	0.286	1.797	0.073
AGE	0.171	0.038	0.197	4.454	0.000
DARxSIZE	-0.005	0.027	-0.082	-0.170	0.865
SGRxSIZE	-0.004	0.003	-0.336	-1.402	0.162
CRxSIZE	-0.006	0.002	-1.213	-3.020	0.003

a. Dependent Variable:
ROA

Capital structure with firm size as moderation proxied by the DAR variable has a negative coefficient value and a significance of 0.865 on performance which is proxied by the ROA variable with an alpha significance criterion of 10%.

Sales growth with company size as moderation as proxied by the SGR variable has a negative coefficient value and a significance of 0.162 on performance which is proxied by the ROA variable with an alpha significance criterion of 10%.

Liquidity with firm size as a moderation proxied by the CR variable has a negative coefficient value and a significance of 0.003 on performance as proxied by the ROA variable with an alpha significance criterion of 10%.

4. Discussion

Capital Structure has a negative and significant effect on Performance

With a negative coefficient value and a significance below the alpha level of 1%, it can be concluded that the capital structure has a negative direction and has a significant effect on performance. Then H1 in this study can be rejected.

These results are the same as those of Chandra et al. (2019) and Fekadu Agmas (2020), who previously tried to find a relationship between capital structure and profitability. Capital structure has a significant positive effect on profitability.

Suppose the capital structure has a significant positive effect on profitability. In that case, the trade-off theory is statistically proven, which states that companies tend to go into debt to benefit from tax deductions from interest costs. With a tax reduction, the company's profitability will increase.

On the other hand, the pecking order theory is statistically proven. It states that leverage is negatively correlated with the company's financial performance because high debt levels reduce its economic performance.

This t-test indicates that healthcare companies in ASEAN countries tend to adopt the trade-off theory. In short, high-growth firms tend to avoid debt. This view of the trade-off theory is reinforced by the significant positive effect of capital structure on profitability. Companies use debt to receive tax credits from interest costs to increase profits.

Sales Growth has a positive and significant effect on Performance

A positive coefficient value and a significance of 0.006 on performance as a proxy for the ROA variable has reached the P-Value significance criteria with an alpha significance criterion of 1%. So that Sales Growth has a positive and significant effect on performance so that H2 is accepted.

These results are the same as those of Liu et al. (2020), who studied agricultural companies in China and Dakić et al. (2020) researched food processing companies in the Republic of Serbia. The ROA ratio shows how well the company's total assets are used by management for profit. This means that the higher the ROA indicates that the company is making more money with less investment. ROA is a handy comparative indicator of profitability in an industry. One of the main factors that can improve the company's business performance is the level of sales growth.

Liquidity has a negative and insignificant effect on performance

With Liquidity which has a negative coefficient value and a significance of 0.519 on performance as a proxy for the ROA variable, it does not reach the P-Value significance criteria with an alpha significance criterion of 10%. So that sales growth has a positive and significant effect on performance, H3 is rejected.

These results are the same as the research results by Alarussi & Alhaderi (2018) on companies in various industries where the study did not find a significant relationship between liquidity and profitability.

Company performance is considered a source of sustainable economic growth, one of the most critical factors analyzed by stakeholders in their decision-making process.

Any company that manages its liquidity is fundamental to all organizations, regardless of size. Higher liquidity results in increased agency problems between managers and shareholders, as managers tend to invest more in projects that strengthen their position in the company than in projects that contribute to increase company profitability.

Capital structure moderated by firm size affects performance

With Capital Structure with firm size as moderation which has a negative coefficient value and a significance of 0.865 on performance, it can be concluded that firm size cannot moderate capital structure on performance.

ROA shows how well the company's total assets are used by management to make a profit. This means that the higher the ROA indicates that the company is making more money with less investment. Also, ROA is a useful comparative indicator of profitability in an industry.

This result contrasts with the 2021 study, which tried to examine the firm size, which acts as a moderating variable and concluded that firm size strengthened the relationship between DAR and DAR on ROA.

Ibhagui's research (2018) shows that the negative effect of leverage on company performance is most prominent and significant for small-sized companies; however, the effect diminishes as the firm grows, eventually disappearing when the firm size exceeds the expected threshold level. This means that firm size does affect the relationship between leverage and firm performance. There is a level or 'boundary point' of firm size so that the relationship between power and firm performance changes.

Sales Growth with moderate company size affects Performance

With sales growth with company size as a proxy, the proxy has a negative coefficient value and a significance of 0.162 for performance with an alpha significance criterion of 10%. So it can be concluded that sales growth with moderate company size does not show significant results on performance, so H5 is rejected.

A study by (Albulescu et al., 2021) concluded that large companies recorded higher growth rates. ROA is a very useful comparative indicator of profitability in an industry. One of the main factors that can improve the company's business performance is the level of sales growth. This result is in contrast to Abbasi's research which found that the interaction term (Size x Growth) has a significance on firm performance,

Liquidity with moderate firm size has a significant effect on performance

With the Liquidity Variable with firm size as moderating having a negative coefficient value and a significance of 0.003 on performance, it can be concluded that firm size can moderate performance in its influence on performance. So H6 is accepted.

This result is to Dalci's research (2020), the liquidity-profitability relationship can consider firm size to see whether the observed relationship has an effect. The impact of liquidity on profitability is expected to be influenced by firm size, whose results have proven a moderating role of firm size on the relationship between liquidity and profitability for German non-financial firms regardless of the industry in which they operate.

5. Conclusion

Capital structure has a negative effect on performance, and Sales growth positively affects performance. Only Liquidity has insignificance and a negative effect on performance. Firm size cannot strengthen the relationship between capital structure and performance, same as sales growth and performance. On the other hand, Firm size can strengthen the relationship between liquidity and performance.

There are problems in the classical assumption test results due to limitations in this study. In this study, treatment was carried out to overcome difficulties in the classical assumption test. However, the data still showed problems in the results of the heteroscedasticity and multicollinearity tests, so in this study, using the data before treatment became a limitation of the study.

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