Relationship Analysis of Capital Structure and Profitability Ratio in Trade Sector Companies in Indonesia

Ranila Suciati[1*], Marlina[2], Zackharia Rialmi[3], Heni Nastiti[4]
[1] Universitas Pembangunan Nasional Veteran Jakarta, Indonesia, ranila@upnvj.ac.id
[2] Universitas Pembangunan Nasional Veteran Jakarta, Indonesia, marlinatanjung0903@gmail.com
[3] Universitas Pembangunan Nasional Veteran Jakarta, Indonesia, zac_rialmi@upnvj.ac.id
[4] Universitas Pembangunan Nasional Veteran Jakarta, Indonesia, heni_nastiti@yahoo.com

Corresponding author: ranila@upnvj.ac.id

Abstract: A composition or a structure of liabilities is the definition of the capital structure of a company. The purpose of the study is to analyze the structure of capital and the performance of finance during the years 2015 to 2018 (4 years) in the enterprise sector is national Trade in Indonesia. The research sample was processed from the annual report data Trade sector companies in Indonesia that are listed on the Indonesia Stock Exchange, this is in accordance with the objectives of this study. The method of analysis in this study uses panel data regression. The relationship between capital structure and profitability ratios will be revealed from this study. Variables independently that structure capital will be in proxy with a debt to equity ratio (DER), debt to asset ratio (DAR), and long-term debt ratio (LTDR). And for variable dependent is the performance of finance will be in proxy with Gross Profit Margin (GPM), Net Profit Margin (NPM), and Return on Capital Employed (ROCE). Research on the company's sector of Commerce in Indonesia resulted in a relationship that significant between variables independent manner together against variable dependent.

Keywords: Capital Structure; Trade; Financial Performance; Profitability Ratio

INTRODUCTION

Activity trade Indonesia in accordance with that seen in the report statistics. kemendag.go.id total trade in Indonesia, both in the activities of the export and import of oil and non -oil and gas from the year 2015 until the year 2018 is likely to experience an increase from year to year although in the year 2016 the percentage of total trade in Indonesia experienced a decline it all, From 2015 to 2018 sector of trade in Indonesia experienced an increase. With the increasing activities of trade in Indonesia, both from the activities of export and import then it means the sector of trade in Indonesia is still in demand by

employers in Indonesia and regards this means companies sector of trade will require a lot of funds to support the activities of transactions of trade in the activities of export and import goods. Untu k supporting the activities of trading the company requires a fee to be used to produce goods and meet the various costs that exist for the activity either in national or international. The need for funds is of course related to the importance of determining the capital structure of a company. This decision is important because determining the optimal use of the capital structure or debt ratio will make an organization or company able to compete in its competitive environment.

Selection of alternative addition of capital derived from h debt, in general, is based on the consideration of cost, said cost because the cost of interest that should be borne by the company over the small of the profit that is obtained from the use of the debt of the (Gitman et al., 2015). Capital structure refers to the framework of the financial companies which consists of debt and equity are used to finance the company. The ability of the company to carry out the needs of stakeholder interests they are linked closely to the structure of the capital. Capital structure in financial terms means the way companies finance their assets through a combination of equity, debt, or hybrid securities (Saad, 2010).

The stock market is also influenced by capital structure decisions. Companies should plan their initial capital structure at the time of promotion. Furthermore, whether funds should be raised, capital structure decisions are involved. (Bodhanwala, 2014).

In this study, to measure the performance of a company using profitability ratios, namely GPM (gross profit margin), NPM (net profit margin), and ROCE (return on capital employed). And for measurement or indicator that is used in the research is to the variable structure of capital is DER (Debt to Equity Ratio) which is a ratio to measure the ability of the company to refund the cost of debt through the capital itself which has that measured through debt and total capital (equity), DAR (Debt to Asset Ratio) which is a ratio to measure how much a company uses debt to finance its assets, and the third to measure capital structure using LTDR (Long-term Debt Ratio) which is a ratio to measure how much a company uses long - term debt to finance its assets.

The literature on the relationship between firm performance and capital structure has yielded mixed results. Some have found a positive relationship between capital structure and financing performance (profitability). As studies are conducted by (Roden & Lewellen, 1995) which examines the structure of capital of 48 US firms over the period 1981-1990 and revealed no relationship positive between profitability and structure of the capital. Similar results were documented by (Champion, 1999). (Hadlock & James, 2002) suggest the company to level the advantages of high use levels of high debt. In other words, they show a positive relationship between performance and capital structure.

Research that is done by (Abor, 2005) reported the relationship positive between the structure of capital, which is measured by the Short-term Debt and Total Debt, and performance during the period 1998-2002 in firms Ghana. (Berger and Bonaccorsi in Patti, 2006) gives the results of the same. Finally, (Arbabiyan & Safari, 2009) investigated the effects of capital structure on profitability using the 100 companies that registered in Iran from 2001 to 2007. They found the debt term short and the total debt significantly positive with profitability (ROE) while showing no correlation negative between debt term length and ROE.

The research was also conducted by (Hasan et al., 2014) states that it is not there is a relationship that significant between the structure of the capital with the ROE (return on equity), and to the structure of capital in proxy with LTDTA (Long-term Debt to Total Assets) have a relationship negatively with company performance as measured by EPS, ROE, ROA and Tobin's Q.

And based on the description of the background behind the research on the condition of sector trade both activities of export and import of goods which tend to rise and the results of the study earlier, the literature on the relationship between the structure of capital and the performance of finance that still shows the results of the different, the need to add a variable measuring the ratio of profitability as well as renew the term Research time is a research gap or novelty in this study. Based on this, the researcher will study a study with the title: Relationship Analysis Of Capital Structure And Profitability Ratio In Trade Sector Companies In Indonesia.

LITERATURE REVIEW

The profitability ratio is an important indicator to assess a company. Profitability is not only used to measure the company's ability to generate profits, but also to determine the effectiveness of the company in managing its resources.

The funding decision is to determine the source of funds to be used, whether the funds come from outside or from within the company, and when the funds can be obtained and utilized by the company. The company's capital structure is a mix of all long-term funding sources (equity and debt). In general, a company can choose various alternative capital structures, debt is an alternative capital structure for companies where the use of debt at a certain time will be more profitable for the company compared to its own capital because it will reduce the cost of capital and increase the rate of return for shareholders.

The grand theory in this study refers to the financial theory started by David Duran in 1952, which states that the calculation of company performance can be done with three approaches, namely: (1) Net Profit Approach (2) Net Operating Income Approach. Approach (3) Traditional Approach. Then Modligiani and Miller in 1958 issued a financial theory and considered it as the beginning of the theory of capital structure. This theory is known as MM-Theory of Preposition I and II, the core of this theory states that there is no influence on the proportion of equity and debt on firm value.

Middle range theory refers to the pecking order theory put forward by (Myers & Majluf, 1984) which discusses that companies prefer to finance new investments, the main way is internal with retained earnings, then with debt, and the last is with equity. And (Stiglitz, 1969), (Haugen & Pappas, nd) discusses the theory of capital structure known as Trade-off Theory, which is a trade-off between the cost of financial distress and savings due to taxes (tax shield). (Jensen & Meckling, 1979) argued that Agency Theory is related to firm value due to a conflict between company management (agent) and shareholders (principal). (Myers & Majluf, 1984) Asymmetric Information Theory criticized the findings of Gordon Donaldson and Trade-off Theory that there is any inconsistency between the two theoretical ideas due to the presence of asymmetric information.

In applied theory used a variety of research prior to the decision structure of capital and the factors that influence them the research that has been done by (Kasozi, 2009) who

conduct research on the gap between financial theory and practice by analyzing the significance of the determinants of the choice of capital structure among 123 companies listed on the JSE, which is used to determine the theory used by companies whether to follow the trade-off theory or the pecking order theory. Data obtained from the McGregor Bureau of Financial Analysis database were analyzed using standard multiple regression, stepwise regression, and ANOVA techniques to test financing behavior. The results reveal a significant positive correlation between debt financing and financial distress.

(Fan et al., 2012) , examining the International Comparison of Capital Structure and Options for Debt Maturity 'This study examines the influence of institutions on the capital structure and choice of debt maturity in various parts of companies in developed and developing countries totaling 39 countries. They found that companies that chose to cross-list tend to use more equity and long-term debt. They also found that the taxes and characteristics of the financial institutions that supply capital have an influence on how firms are financed.

Research conducted by (Lipson & Mortal, 2011) regarding Liquidity and Capital Structure. In his research (Lipson & Mortal, 2011) studied the relationship between liquidity decisions and capital structure. Since enhanced liquidity reduces the required return on equity and the cost of issuing equity, we expect more liquid companies to prefer equity in their capital structure. This paper highlights one important role that liquidity plays in a company's decisions - it has a significant impact on the capital structure.

An empirical study has been carried out on the implications between the capital structure and the performance of a company, among others by (San & Heng, 2011) before and during the 2007 crisis they tested the effect of capital structure and company performance, a number of 49 construction companies were taken from Malaysia which was listed on the Stock Exchange. Malaysia between 2005 and 2008, the independent variable in this study (capital structure) used included long-term debt to equity (LDC), debt to equity (DC).), debt to assets (DA), the market value of debt to equity (DEMV), debt to equity (DCE), long term debt to ordinary equity (LDCE), and using the dependent variable (company performance), namely return on capital (ROC), return on equity (ROE), return on assets (ROA), earnings per share (EPS), operational margin (OM) and net margin (NM). It is shown from the research results that, there is a relationship between capital structure and firm performance, while the results also show that the relationship between various variables examined in this study is non- existent/insignificant.

(Amidu, 2007) conducted a study to investigate the dynamics involved in determining the capital structure of Ghanaian banks. Leverage is the dependent variable used in this paper, where LEV is total debt divided by total capital; short-term loan ratio is total short-term debt to equity, while long- term loan ratio is total long-term debt divided by total capital. The explanatory variables include profitability, risk, and asset structure, taxes, size, and sales growth. The regression line model is used in this study and the result is a negative influence between profitability and leverage. Previous research results show that higher profits increase the level of internal financing (TITMAN & WESSELS, 1988). Profitable banks accumulate internal reserves and this allows them to be less dependent on external funds.

Research conducted by (Pratheepkanth, 2011) found that the impact of capital structure on financial performance from 2005 to 2009 on business organizations in Sri Lanka. The results validate the negative influence between capital structure and the financial performance

of Sri Lanka companies. The arguments of previous researchers have a balanced view of the determination of capital structure and firm performance. The study conducted is to try and find the extent to which capital structure has affected the performance of companies, especially the Pakistani banking sector.

Research conducted by (Modigliani & Miller, 1963) is in line with previous research, namely the existence of corporate taxes suggests that companies should use debt capital as much as possible to maximize its value by maximizing the interest tax shield. The significant relationship between short- term debt, long-term debt, and total debt with ROE is consistent with the findings (Abor, 2005).

Different results with research also conducted by (Hasan et al., 2014) explained that there is no significant relationship between capital structure and ROE. And in line with the research conducted (Meero, 2015) in his research on all banking subsectors, it states that there is no significant relationship between capital structure as measured by DER and EAR and financial performance as measured by ROE. Whereas for the capital structure variable which is proxied by DAR, SIZE (Company Size) on financial performance which is proxied by ROE there is a negative significant effect. And research conducted by (Hasan et al., 2014) states that there is a negative influence between the capital structure proxied by LTDTA (Longterm Debt to Total Asset) and company performance as measured by EPS, ROE, ROA, and Tobin's Q.

Regarding profitability ratio that uses a proxy GPM, NPM, and ROCE, then to the capital structure using, DER, DAR, Long Term Debt Ratio (LTDR) can be seen in this study.
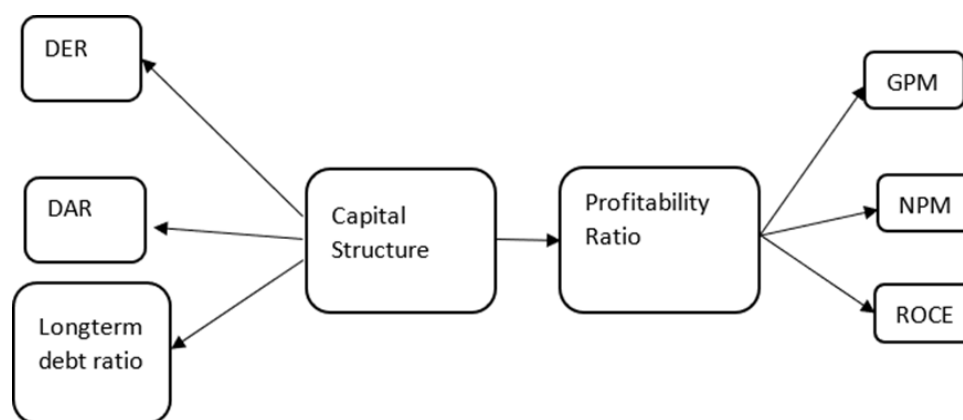
Picture 1. Research mindmaps

RESEARCH METHODS

The quantitative approach method is used in this research. In this study, a quantitative analysis will be carried out, namely the regression method with panel data. The analysis was carried out statistically with available data which is a combination of time series and cross-section which is data from the Trade sector in Indonesia in 2015-2018. The effect of two or more independent (explanatory) variables on one dependent variable will be tested in this study and stated in the general equation as follows :

$$Y1, Y2, Y3 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Y1   = gross profit margin (GPM)
Y2   = net profit margin (NPM)
Y3   = return on capital employed (ROCE)

A   = konstanta
X1   = Debt to Equity Ratio (DER)
X2   = Debt to Equity Ratio (DAR)
X3   = Long-term Debt Ratio (LTDR)
b1, …, bn   = Koefisien regresi
e   = error term

As a basic analysis of a value of the coefficient of regression here is very decisive, because the method of the fundamental is the nature of the research is, by for it if the coefficient value b worth the negative (-), regard this shows the influence of negative where the increase in the value of the variable independently will result in a decrease in the value of the variable dependent. So also on the contrary, if it occurs influences the direction between variables independent to variable dependent, any increase in the value of the variable independently will result in the increase in variable dependent meaning that can be said coefficient value b -value positive (+).

FINDINGS AND DISCUSSION
Description of the Unit of Analysis

Analysis of descriptive on research this will contain the description or depiction of data, where the data were obtained derived from the results of the analysis of descriptive will contain the explanation of the variables were studied both variables independently ie ratio of debt such as DER, DAR, LTDR and variable dependent ie the ratio of profit that would be measured GPM, NPM and ROCE of the variable that will be described among others the value of the mean, the value of maximum, the value of the minimum, and standard deviation. The descriptive results of each variable in this study are as follows :

Table 1. Descriptive description of the capital structure variables with the ratio of profitability in the Trade Sector in Indonesia

Date: 07/07/20
Time: 17:00
Sample: 2015 2019

	GPM	NPM	ROCE	DER	DAR	LTDR
Mean	1.285521	0.099981	0.096564	1.164492	0.492980	0.100790
Median	0.126964	0.008259	0.052370	0.712231	0.481512	0.067596
Maximum	13.22245	1.644834	0.648737	6.931049	1.302545	0.413457
Minimum	-0.041997	-1.250189	-0.194930	-5.195137	0.000000	0.000000
Std. Dev.	2.599865	0.524026	0.156667	1.760200	0.311206	0.107153
Skewness	3.133837	0.188854	0.997528	-0.002242	0.486819	1.357602
Kurtosis	12.97240	4.010864	4.762259	6.526571	2.875518	4.041228
Jarque-Bera	462.4416	3.881696	23.61934	41.45574	3.211561	28.18831
Probability	0.000000	0.143582	0.000007	0.000000	0.200733	0.000001
Sum	102.8417	7.998464	7.725102	93.15934	39.43839	8.063181
Sum Sq. Dev.	533.9844	21.69370	1.939009	244.7660	7.651062	0.907054
Observations	80	80	80	80	80	80

Source : E views 8.0, data processed by the author

From 80 Data observation that in the analysis looks at the table. 1 shows that the enterprise sector is a trade that is listed on the Stock Exchange Indonesia year 2015 to 2018

the value of the average - average higher than the ratio of profitability there is in the ratio of profitability is the gross profit margin (GPM) which amounted to 1.28, with a standard deviation of the value of the highest of 2,59 also exists on the ratio of profitability gross profit margin (GPM). And to the structure of capital, there is a period of years 2015 - 2018 the value of the average highest there on proxy DER is at 1,1 6, and the value of the standard deviation of the highest there on the proxy structure of capital is debt to asset ratio (DAR) is 0.31.

Panel Data Regression Analysis

To find out how the relationship between the proxied capital structure with DER, DAR, LTDR to the profitability ratio, namely GPM, NPM and ROCE, this study uses analysis method with panel data. To find out the most efficient panel data method using Eviews 8, each panel data regression method needs to be tested with three equation models, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). and the interpretation of the results is as follows:

Table 2. Comparison of Capital Structure Testing Results with Gross Profit Margin (GPM)

No.	Method	Testing	Result
1	Chow Test	*Common Effect* vs *Fixed Effect*	*Fixed Effect*
2	Hausman Test	*Random Effect* vs *Fixed Effect*	*Random Effect*
3	*Langrange ultiplier* Test	*Common Effect* vs *Random Effect*	*Random Effect*

Of the three panel data regression models above, in testing the best capital structure with gross profit margin (GPM) is the random effects model which will be further analyzed as shown in the following table.

Table 3. Results of Capital Structure and Gross Profit Margin (GPM) testing using the Random Effect model

Dependent Variable: GPM_
Method: Panel EGLS (Cross-section random effects)
Date: 07/07/20 Time: 17:03
Sample: 2015 2019
Periods included: 5
Cross-sections included: 20
Total panel (unbalanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.491482	0.439690	-3.392121	0.0011
DER	-0.171495	0.075583	-2.268963	0.0261
DAR	0.138489	0.641605	0.215848	0.8297
LTDR	4.966157	1.933964	2.567864	0.0122

Effects Specification				
			S.D.	Rho
Cross-section random			1.482062	0.7547
Idiosyncratic random			0.844989	0.2453

Weighted Statistics			
R-squared	0.153227	Mean dependent var	-0.307700
Adjusted R-squared	0.119802	S.D. dependent var	0.904157
S.E. of regression	0.848270	Sum squared resid	54.68675
F-statistic	4.584169	Durbin-Watson stat	1.780617
Prob(F-statistic)	0.005278		

Unweighted Statistics			
R-squared	0.015280	Mean dependent var	-1.122377
Sum squared resid	225.4820	Durbin-Watson stat	0.431858

Table 4. Comparison Results of Capital Structure Testing with net profit margin (NPM)

No.	Method	Test	Result
1	Chow Test	*Common Effect* vs *Fixed Effect*	*Fixed Effect*
2	Hausman Test	*Random Effect* vs *Fixed Effect*	*Random Effect*
3	*Langrange Multiplier* Test	*Common Effect* vs *Random Effect*	*Random Effect*

Of the three panel data regression models above, in testing the best capital structure with net profit margin (NPM) is the random effects model which will be further analyzed as shown in the following table.

Table 5. Results of Capital Structure and Net Profit Margin (NPM) testing using the Random Effect model

Dependent Variable: NPM
Method: Panel EGLS (Cross-section random effects)
Date: 07/07/20 Time: 17:09
Sample: 2015 2019
Periods included: 5
Cross-sections included: 20
Total panel (unbalanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.111194	0.142326	0.781262	0.4371
DER	0.064196	0.027664	2.320535	0.0230
DAR	-0.202450	0.227458	-0.890055	0.3762
LTDR	0.137270	0.691049	0.198640	0.8431

Effects Specification			
		S.D.	Rho
Cross-section random		0.437374	0.6584
Idiosyncratic random		0.315067	0.3416

Weighted Statistics			
R-squared	0.102311	Mean dependent var	0.033880
Adjusted R-squared	0.066876	S.D. dependent var	0.323975
S.E. of regression	0.312954	Sum squared resid	7.443471
F-statistic	2.887284	Durbin-Watson stat	1.831356

Prob(F-statistic)	0.041007		

Unweighted Statistics			
R-squared	0.040699	Mean dependent var	0.099981
Sum squared resid	20.81079	Durbin-Watson stat	0.655028

Source : Data processed with Eviews 8 .0

Table 6. Comparison Results of Capital Structure Testing with Return on Capital Employed (ROCE)

No.	Method	Test	Result
1	Chow Test	*Common Effect* vs *Fixed Effect*	*Fixed Effect*
2	Hausman Test	*Random Effect* vs *Fixed Effect*	*Random Effect*
3	*Langrang Multiplier* Test	*Common Effect* vs *Random Effect*	*Random Effect*

Of the three panel data regression models above, in testing the best capital structure with return on capital employed (ROCE) is the random effects model which will be further analyzed as shown in the following table.

Table 7. Results of Capital Structure Testing and Return On Capital Employed (ROCE) with the Random Effect model

Dependent Variable: ROCE
Method: Panel EGLS (Cross-section random effects)
Date: 07/07/20 Time: 17:53
Sample: 2015 2019
Periods included: 5
Cross-sections included: 20
Total panel (unbalanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.036870	0.036733	1.003730	0.3187
DER	-0.026492	0.008931	-2.966237	0.0040
DAR	0.056389	0.066257	0.851072	0.3974
LTDR	0.622535	0.205595	3.027966	0.0034

Effects Specification			
		S.D.	Rho
Cross-section random		0.087894	0.4004
Idiosyncratic random		0.107569	0.5996

Weighted Statistics			
R-squared	0.217697	Mean dependent var	0.050402
Adjusted R-squared	0.186816	S.D. dependent var	0.121054
S.E. of regression	0.109163	Sum squared resid	0.905654
F-statistic	7.049667	Durbin-Watson stat	1.796078
Prob(F-statistic)	0.000304		

Unweighted Statistics			
R-squared	0.227357	Mean dependent var	0.096564

Sum squared resid	1.498162	Durbin-Watson stat	1.085747

Source : Data processed with Eviews 8 .0

Classic Assumption Test

To determine whether the data is processed to be reliable and to note that all of the data that is processed is data that does not violate the assumptions of classical, then the study is going to examine some of the test assuming a classic in every relationship indicator of capital structure with the ratio of profitability do some test the assumptions of classical data. The following are the results of the classic assumption test on processed data:

a. Data Normality Test

Normality is a test that aims to find out whether the data used is present or has a normal distribution or in other words, it can represent a population with a normal distribution. This test uses the histogram graph method and the Jarque-Bera statistical test (JB test). Following are the results of data normality testing on the relationship between capital structure and profitability ratios, namely GPM, NPM, and ROCE :

Table 8. Data Normality Testing

Test	GPM	NPM	ROCE
Jarque-Bera	4,03	5,56	0,12
Probability	0,13	0,06	0,94

Source: Data processed with Eviews 8 .0

Value JB for GPM for 4.03, NPM of 5.56, and ROCE of 0 . 12 and for the Chi-Square value by looking at the number of research variables that we use, in this case, 3 variables in each relationship between the capital structure variables (DER, DAR, LTDR) and each indicator of the profitability ratio. With values significantly that we use in the case is 0.5 or 5%. Based on the table Chi-Square with df = k-1 (4-1 = 3) can be seen at 7.81 with degrees of freedom 0.05 so that the entire value of the Jarque-Bera on every indicator of the ratio of profitability < table Chi-Square. And by looking at the probability value for each indicator of the profitability ratio > 0.05, it can be concluded that the research data is normally distributed.

b. Multicollinearity Test

The purpose of this multicollinearity test is to find out and test a regression model whether in the processed data there is a correlation or relationship between independent variables. Multicollinearity problems can be seen from the results of the correlation matrix value test which can be seen in the following table:

Table 9. Correlation Matrix Calculation Results

	DER	DAR	LTDR
DER	1.000000	0.237170	0.467125
DAR	0.237170	1.000000	0.502194
LTDR	0.467125	0.502194	1.000000

Source: Data processed with Eviews 8.0

Based on the table above, it can be seen that the correlation coefficient between the independent variables is less than 0.80. This means that the data in the study there was no problem of multicollinearity between the independent variables and can be said to estimate the relationship between DER, DAR, and LTDR to GPM, NPM, ROA, and ROCE Trading sector companies listed on the IDX for the 2015 - 2018 period can use this model.

c. Autocorrelation Test

In this study, the autocorrelation test was carried out by the Durbin-Watson (DW) method. From the table above can be seen that the value DW of the equation regression which is formed of relationship capital structure (DER, DAR, LTDR) with GPM is at 1.78, NPM is at 1.83, and the ROCE is at 1.79. while the value of the Durbin-Watson tables each - each for the relationship between indicators of capital structure with the ratio of profitability, namely with n = 80 and k = 3, the obtained value of dL = 1.5600 and dU = 1.7153. In the autocorrelation test, the data can pass the test if DW > DU < 4-DU (2.28).

While the value of 1.78; 1.83; 1.79> 1.71 <2.28, so it can be inferred value DW of the model regression formed in this study there was no autocorrelation. And the result of this is a model of the best in the regression that was formed namely Random Effect.

d. Heteroscedasticity Test

To test whether in the regression model that is formed there is an inequality of variants of the residual logarithm of the squared regression model is to perform a heteroscedasticity test. If the data is homoscedastic, it means that the processed data is good data. Identification of the problem of heteroscedasticity from the calculation results that identify no heteroscedasticity is to use the Park test. By looking at the value of the regression coefficient of the independent variable is not significant to the Dependent Variable log (residual2). then the hypothesis used is:

H_0: There is no heteroscedasticity problem
H_1: There is a heteroscedasticity problem

Table 10. Heteroscedasticity Testing Results

Dependent Variable: ABS(RESID)
Method: Panel EGLS (Cross-section random effects)
Date: 07/07/20 Time: 17:54
Sample: 2015 2019
Periods included: 5
Cross-sections included: 20
Total panel (unbalanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.074054	0.017072	4.337672	0.0000
DER	-0.006438	0.004159	-1.548173	0.1257
DAR	0.060768	0.030816	1.971950	0.0523
LTDR	0.133273	0.095642	1.393457	0.1675

Effects Specification				
			S.D.	Rho

Cross-section random		0.040743	0.3979
Idiosyncratic random		0.050116	0.6021

Weighted Statistics			
R-squared	0.130652	Mean dependent var	0.057599
Adjusted R-squared	0.096335	S.D. dependent var	0.058090
S.E. of regression	0.055221	Sum squared resid	0.231748
F-statistic	3.807274	Durbin-Watson stat	1.571545
Prob(F-statistic)	0.013404		

Unweighted Statistics			
R-squared	0.146687	Mean dependent var	0.109946
Sum squared resid	0.453199	Durbin-Watson stat	0.803628

Source : Data processed with Eviews 8 .0

Based on the results of the data processing above, it can be concluded that the probability value of each independent variable is greater than alpha (0.1257; 0.0523; 0.1675 > 0.05) and the meaning is that H0 is accepted, or in other words the value of the regression coefficient for the independent variable DER, DAR and LTDR not be significant to the variable dependent LOG (resid ^ 2), so it does not there is a problem of heteroscedasticity in the data model of regression research this

Hypothesis testing
a. Correlation Analysis

To find out how closely the relationship between all independent variables X1, X2, X3, with the dependent variable Y1, Y2, Y3, Y4 in this study using correlation analysis.

Table 11. Results of the Random Effect Model (REM) on the relationship between the capital structure variables and the GPM profitability ratio

Dependent Variable: GPM_
Method: Panel EGLS (Cross-section random effects)
Date: 07/07/20 Time: 17:03
Sample: 2015 2019
Periods included: 5
Cross-sections included: 20
Total panel (unbalanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.491482	0.439690	-3.392121	0.0011
DER	-0.171495	0.075583	-2.268963	0.0261
DAR	0.138489	0.641605	0.215848	0.8297
LTDR	4.966157	1.933964	2.567864	0.0122

Effects Specification			
		S.D.	Rho
Cross-section random		1.482062	0.7547
Idiosyncratic random		0.844989	0.2453

Weighted Statistics			
R-squared	0.153227	Mean dependent var	-0.307700

Adjusted R-squared	0.119802	S.D. dependent var	0.904157
S.E. of regression	0.848270	Sum squared resid	54.68675
F-statistic	4.584169	Durbin-Watson stat	1.780617
Prob(F-statistic)	0.005278		

Unweighted Statistics			
R-squared	0.015280	Mean dependent var	-1.122377
Sum squared resid	225.4820	Durbin-Watson stat	0.431858

Source : Data processed with Eviews 8 .0

Results obtained R^2 coefficient of determination (R-square) between DER, DAR, and LTDR with GPM is equal to 0.15322, then the value of R is $\sqrt{0{,}15322} = 0.3914$

Table 12. The results of the Random Effect Model (REM) are the relationship between the capital structure variables and the NPM profitability ratio

Dependent Variable: NPM
Method: Panel EGLS (Cross-section random effects)
Date: 07/07/20 Time: 17:09
Sample: 2015 2019
Periods included: 5
Cross-sections included: 20
Total panel (unbalanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.111194	0.142326	0.781262	0.4371
DER	0.064196	0.027664	2.320535	0.0230
DAR	-0.202450	0.227458	-0.890055	0.3762
LTDR	0.137270	0.691049	0.198640	0.8431

Effects Specification				
			S.D.	Rho
Cross-section random			0.437374	0.6584
Idiosyncratic random			0.315067	0.3416

Weighted Statistics			
R-squared	0.102311	Mean dependent var	0.033880
Adjusted R-squared	0.066876	S.D. dependent var	0.323975
S.E. of regression	0.312954	Sum squared resid	7.443471
F-statistic	2.887284	Durbin-Watson stat	1.831356
Prob(F-statistic)	0.041007		

Unweighted Statistics			
R-squared	0.040699	Mean dependent var	0.099981
Sum squared resid	20.81079	Durbin-Watson stat	0.655028

Source : Data processed with Eviews 8 .0

The result is that the coefficient of determination R^2 (R-square) between DER, DAR, and LTDR with NPM is 0.102311, then the value of R is $\sqrt{0{,}102311} = 0.3198$

Table 13. Results of the Random Effect Model (REM) on the relationship between the capital structure variables and the ROCE profitability ratio

Dependent Variable: ROCE
Method: Panel EGLS (Cross-section random effects)
Date: 07/07/20 Time: 17:53
Sample: 2015 2019
Periods included: 5
Cross-sections included: 20
Total panel (unbalanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.036870	0.036733	1.003730	0.3187
DER	-0.026492	0.008931	-2.966237	0.0040
DAR	0.056389	0.066257	0.851072	0.3974
LTDR	0.622535	0.205595	3.027966	0.0034

Effects Specification				
			S.D.	Rho
Cross-section random			0.087894	0.4004
Idiosyncratic random			0.107569	0.5996

Weighted Statistics				
R-squared	0.217697	Mean dependent var		0.050402
Adjusted R-squared	0.186816	S.D. dependent var		0.121054
S.E. of regression	0.109163	Sum squared resid		0.905654
F-statistic	7.049667	Durbin-Watson stat		1.796078
Prob(F-statistic)	0.000304			

Unweighted Statistics			
R-squared	0.227357	Mean dependent var	0.096564
Sum squared resid	1.498162	Durbin-Watson stat	1.085747

Source : Data processed with Eviews 8 .0

The result is that the coefficient of determination R² (R-square) between DER, DAR, and LTDR with ROCE is 0. 217697, then the value of R is $\sqrt{0.217697}= 0.4665$

b. Multiple Linear Regression Equation Test

To test the extent and direction of the influence of the independent variables on the dependent variable is to use multiple linear regression analysis methodS. In this study using independent variables, namely DER, DAR, and LTDR. While the dependent variable is the profitability ratio (GPM, NPM, ROA, ROCE). Based on the results of the table. 11, the equation obtained from multiple linear regression is as follows:

GPM = -1.491482 – 0.171495 DER + 0.138489 DAR + 4.966157 LTDR+ ϵ

Information :
GPM   : Profitability Ratio 1
DER   : Capital Structure Ratio 1
DAR   : Capital Structure Ratio 2
LTDR   : Capital Structure Ratio 3
α   : Constant

ϵ   : Error Level

By looking at the results of the multiple linear regression equation, the effect of each independent variable on the dependent variable can be analyzed, including:

1. -1.491482 is showing a constant value, which means that, if the values of DER, DAR, and LTDR are constant, then the amount of GPM is -1.491482.

2. -0.171495 is the value of the DER regression coefficient, which means that between the independent variables and the dependent variable has a negative relationship, meaning that every 1 DER change, the GPM will decrease by 0.171495, in this case, other factors are considered constant.

3. The regression coefficient value of DAR has a positive relationship of 0.138489, meaning that every change of 1 DAR value, the GPM will increase by 0.138489, in this case, other factors are considered constant.

4. A positive relationship of 4.966157 shows the value of the regression coefficient of LTDR, which means that every change of 1 in LTDR value, then GPM will increase by 4.966157, other factors, in this case, are considered constant.

Based on the results of the table. 12, the equation obtained from multiple linear regression is as follows:

NPM = 0.111194 + 0.064196 DER - 0.202450 DAR + 0.137270 LTDR+ ϵ

Information:

NPM   : Profitability Ratio 2
DER   : Capital Structure Ratio 1
DAR   : Capital Structure Ratio 2
LTDR   : Capital Structure Ratio 3
α   : Constant
ϵ   : Error Level

By looking at the results of the multiple linear regression equation, the effect of each independent variable on the dependent variable can be analyzed, including :

1. 0.111194 is showing a constant, which means that, if the values of DER, DAR, and LTDR are constant, then the amount of NPM is 0.111194.

2. 0.064196 is the value of the DER regression coefficient, which means that between the independent variables and the dependent variable has a positive relationship, meaning that every 1 DER change, NPM will increase by 0.064196, in this case, other factors are considered constant.

3. The regression coefficient value of DAR has a negative relationship of 0.202450, meaning that every 1 change in DAR value, then NPM will experience a decrease of 0.202450, in this case, other factors are considered constant.

4. A positive relationship of 0.137270 shows the value of the regression coefficient of LTDR, which means that every change of 1 in LTDR value, then NPM will increase by 0.137270, other factors, in this case, are considered constant.

Based on the results of the table. 13, the equation obtained from multiple linear regression is as follows:

ROCE = 0.036870 - 0.026492 DER + 0.056389 DAR + 0.622535 LTDR+ ϵ

Information :

ROCE : Profitability Ratio 4
DER   : Capital Structure Ratio 1
DAR   : Capital Structure Ratio 2
LTDR   : Capital Structure Ratio 3
α   : Constant
ϵ   : Error Level

By looking at the results of the multiple linear regression equation, the effect of each independent variable on the dependent variable can be analyzed, including :

1. 0.036870 is indicating a constant, which means that , if the values of DER, DAR, and LTDR are constant, then the ROCE value is 0.036870.

2. 0.026492 is the value of the DER regression coefficient, which means that between the independent variables and the dependent variable has a negative relationship, meaning that every 1 DER change, the RO CE will increase by 0.026492, in this case, other factors are considered constant.

3. The regression coefficient value of DAR has a positive relationship of 0.056389, meaning that for every change of 1 DAR value, the ROCE will increase by 0.056389, in this case, other factors are considered constant.

4. A positive relationship of 0.622535 shows the value of the regression coefficient of LTDR, which means that every change of 1 in LTDR value, then ROCE will increase by 0.622535, other factors ,in this case, are considered constant.

c. Partial Regression Coefficient Test (t-test)

The test used to determine whether the independent variable partially affects the dependent variable is also called the t-test. Attached to the t-statistic table, the t table value is 1.99210 by looking at the t table attachment with df = (n-k-1) = (80-4-1) = 75 and degrees of freedom of 0.05.

1. Test results for the relationship between capital structure (DER, DAR, LTDR) and GPM

   a. The results of DER affect and are significant to GPM can be seen from table 11. This can be seen from the results of the partial regression test (t-test) which shows that the negative DER regression coefficient is 0.171495, the t statistical value is 3.392121> t- table, and the probability value of t statistical equal to 0.0261 <0.05.

   b. The results of DAR do not affect or are not significant to GPM can be seen from table This can be seen from the results of the partial regression test (t-test) which shows that the positive DAR regression coefficient is 0.138489, the statistical t value is 0.215848 <t-table, and the probability value t statistic is 0.8297> 0.05.

   c. The results of LTDR and significant influence on GPM can be seen from table 11. This can be seen from the results of the partial regression test (t-test) which shows that the positive LTDR regression coefficient value is 4.966157, the statistical t value is 4.966157> t-table, and the probability value of t statistics equal to 0.0122 <0.05.

2. Test results for the relationship between capital structure (DER, DAR, LTDR) and NPM

a. The results of DER and significant influence on NPM can be seen from table 12. It is seen from the results of testing the partial regression (t-test) showed that the value of the regression coefficient DER positive amounting to 0.064196, the value of t statistic of 2.320535 > t- table, and the probability values t statistic of 0.0230 > 0.05.

b. Results DAR does not affect or does not significantly influence the NPM can be seen from Table 12. It is seen from the results of the partial regression test (t-test) showed that the regression coefficient DAR negative amounting to 0.202450, the value of t statistic of 0.890055 <t- table, and the probability values statistics at 0.3762 > 0.05.

c. LTDR results do not affect or are not significant for N PM can be seen from table 12. It is seen from the results of the partial regression test (t-test) showed that the value of the regression coefficient LTDR positive amounting to 0.137270, the value of t statistics of 0.198640 < t- table, and the probability values statistics at 0.8431 > 0.05.

3. Test results for the relationship between capital structure (DER, DAR, LTDR) and ROCE
   a. Results DER influence and significant impact on ROCE can be seen from Table 13. It is seen from the results of testing the partial regression (t-test) showed that the value of the regression coefficient DER negative amounting to 0.026492, the value of t statistic of 2.966237 > t- table, and the probability values t-statistic of 0.0040 > 0.05.

   b. Results DAR does not affect or does not significantly against ROCE can be seen from Table 13. It is seen from the results of the partial regression test (t-test) showed that the regression coefficient D A R positive amounting to 0.056389, the value of t statistic of 0.851072 < t-table, and the probability values statistic at 0.3974 > 0.05.

   c. Results LTDR influence and significance to the RO CE can be seen from Table 13. It is seen from the results of the partial regression test (t-test) showed that the value of the regression coefficient LTDR positive amounting to 0.622535, the value of t statistics of 3.027966 > t- table, and the probability values statistic of 0.0034 < 0.05.

d. Regression Coefficient Test Together (Test F)

The F statistical test is used to test the significance of the regression parameters simultaneously. This test is used to show whether all the independent variables included in the model simultaneously have an influence on the dependent variable. In table F, the statistical value of F table is 2.72 seen from the attachment of table F by looking at the value of df 1 = (k-1) = (4- 1) = 3, df 2 = (n-k) = (80-4) = 76.

And based on the results of the F statistical test, it can be concluded that the results of the f test for each variable include:

1. Whereas DER, DAR, LTDR together have an effect on the GPM variable when viewed from the regression output results show that the significance value is 0.005278 <0.05 (5%) and 4.584169> F-table.

2. Whereas DER, DAR, LTDR together have an effect on the NPM variable when viewed from the regression output results, it shows that the significance value is 0.041007 <0.05 (5%) and 2.887284> F-table.

3. Whereas DER, DAR, LTDR together have an effect on the ROCE variable when viewed from the regression output results, it shows that the significance value is 0.000304 <0.05 (5%) and 0.000304 <F-table.

e. Coefficient of Determination

By using analysis of the coefficient of determination percentage of DER, DAR, LTDR effect on each variable ratio of profitability, among others.

1. Based on the results of the table 11 can be known that it together - each variable DER, DAR, LTDR have a contribution to explain GPM amounted to 15.32 %, while the rest of 84.68 % (100% - 15.32 %) is explained by variables other is not researched or not included in this study. It is can be seen from the magnitude of the value of the R-squared value is at 0.153227.

2. Based on the results of Table 12 can be known that it together - each variable DER, DAR, LTDR have a contribution explaining NPM amounted to 10.23%, while the rest of 89.77% (100% - 10.23%) is explained by variables other not researched or not included in this study. It is can be seen from the magnitude of the value of the R-squared value is at 0.102311.

3. Based on the results of Table 13 can be known that it together - each variable DER, DAR, LTDR have a contribution to explain ROCE amounted to 21.76%, while the rest of 54.26% (100% - 21.76%) is explained by variables other not researched or not included in this study. It is can be seen from the magnitude of the value of the R-squared value is at 0.217697.

Discussion of Research Results

By doing testing of hypotheses using variables independent DER, DAR, LTDR, and variable dependent GPM, NPM, ROCE and use the program Eviews with panel data, it can be determined that the model of the best in research this is the Random Effect Model (REM). Results of research on each variable are partially or simultaneously may be explained as follows:

Effect Of Der On Profitability Ratio (GPM, NPM, ROCE)

The t-test results based on the test results of the four tables above, namely tables 11, 12, and 13, are that the DER variable has a negative significant effect on GPM and ROCE, and has a positive significant effect on NPM. This result is in accordance with the research title "Capital Structure and Corporate Performance of Malaysian Construction Sector" conducted by (San & Heng, 2011) in the construction sector listed on the Malaysian stock exchange which states that the independent variable used is long-term debt to capital (LDC), debt to equity (DC), debt to assets (DA), market value of debt to equity (DEMV), debt to equity (DCE), long term debt to common equity (LDCE) and using the dependent variable (Company performance), namely, earnings per share (EPS), return on capital (ROC), return on equity (ROE), return on assets (ROA), operational margin (OM) and net margin (NM) show that, there is a relationship between capital structure and company performance. . In accordance with the pecking order theory which states that the best source of financing to encourage company growth is based on the order of funding preferences that have the

smallest risk, namely retained earnings, debt and issuance of new equity. if a company has a high level of liquidity, the company will use less capital from loans.

The negative effect that occurs between the ratio of debt to equity and gross profit in trading sector companies in Indonesia is most likely because companies in the trading sector find it difficult to predict changes in market demand and are highly dependent on the state of a country's economy. Trading sector companies in Indonesia do not want to take risks with financing through debt. Because when the economy of a country decreases, the desire of the people to buy a product decreases and the purchasing power of the people decreases, the company's income will also tend to decline. And this is very influential if the company takes funding from debt. The company's inability to pay the existing debt and interest will put the company at risk of bankruptcy.

Effect Of Dar On Profitability Ratio (GPM, NPM, ROCE)

The t-test results based on the test results of the four tables above, namely tables 11,12 and 13 are that the DAR variable does not have a significant effect on GPM, NPM, and ROCE. In line with research conducted by (Lislevand, 2012) regarding the relationship between financial performance and leverage levels at 403 microfinance institutions, it is stated that there is a significant negative relationship between ROA and long-term debt or total debt.

After processing the data, the results of research conducted on companies in the trading sector in Indonesia does not have a significant relationship to net income and gross profit. Because the capital structure ratio used, namely DAR, calculates based on the ratio of debt to assets owned by the company, while the use of profitability ratios, namely gross profit, and net income, does not directly calculate or relate the value of assets in its calculation. So that it causes no relationship between DAR and GPM and NPM.

Effect Of Ltdr On Profitability Ratio (GPM, NPM, ROA, ROCE)

The t-test results based on the test results of the four tables above, namely tables 13, 14, 15, and 16 are that the LTDR variable has a significant positive effect on GPM and ROCE, and does not have a significant effect on NPM. The results of this study are also in line with research conducted (Nirajini, A., & Priya, 2013) in their research conducted on trading companies listed on the stock exchange in Sri Lanka, stating that there is a significant positive relationship between LTDR and GPM, NPM, ROA, ROE and ROCE.

And the results of this study are also in line with previous research conducted by (Meero, 2015) which in his research stated that there was no significant effect between long-term debt ratio and company performance. The reason is Indonesian trading sector companies, when using long-term debt to meet the company's capital have a longer period of time to pay the debt, and therefore the company has sufficient time and lower payments that can reduce the company's burden so that payments or Long-term debt to the trading sector in Indonesia will not affect a company's earnings or performance.

Effect Of DER, DAR, AND LTDR Together On ROE

By performing the F output statistical test of the Random Effect model above, it can be concluded that together the DER, DAR and LTDR variables have a negative effect on the

profitability ratio variable (GPM, NPM, ROCE). This is because the statistical F regression output is 0.0000 <0.05 (5%), meaning that simultaneously it shows the effect of DER, DAR, and LTDR on GPM, NPM, ROCE.

The research carried out in the trading sector in Indonesia which was listed on the Indonesia Stock Exchange in 2015-2018 is in line with previous research conducted by (Abor, 2005), (San & Heng, 2011) and in line with the pecking order theory. Companies in the Indonesian trading sector prefer to use funding from the internal sector which tends to have less risk, because the trade sector is very influential on the state of the country's economy and people's purchasing power, making the income of this sector very difficult to predict, so that when the country's economy and purchasing power community decreases, the company's income will also tend to decline. This is very influential if the company takes funding from the external sector and cannot pay the company's debt, the company will experience the risk of bankruptcy.

CONCLUSIONS AND SUGGESTIONS

The results of the research and discussion of this research can be concluded, among others:

1. There is a negative influence between Debt to Equity Ratio (DER) on profitability ratios, namely GPM and ROCE, and has a significant positive effect on profitability ratios, namely NPM in the trade sector in Indonesia.
2. There are no relationship between the Debt to Asset Ratio (DAR) and the profitability ratio, namely, GPM, NPM, and ROCE in the trade sector in Indonesia.
3. There is a significant positive relationship between the long-term debt ratio (LTDR) to the profitability ratio, namely GPM and ROCE, and has no influence on the profitability ratio, namely NPM in the trade sector in Indonesia.
4. Simultaneously the variables DER, DAR, and LTDR have a significant effect on the profitability ratio (GPM, NPM, ROCE) of the trade sector in Indonesia.

REFERENCE

Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. Journal of Risk Finance, 6(5), 438–445. https://doi.org/10.1108/15265940510633505

Amidu, M. (2007). Determinants of capital structure of banks in Ghana: An empirical approach.

Baltic Journal of Management, 2(1), 67–79. https://doi.org/10.1108/17465260710720255

Arbabiyan, A.-A., & Safari, M. (2009). The effects of capital structure and profitability in the listed firms in Tehran Stock Exchange. Journal of Management Perspective, 33(12), 159–175.

Barbosa, N., & Louri, H. (2005). Corporate performance: Does ownership matter? A comparison of foreign- and domestic-owned firms in Greece and Portugal. Review of Industrial Organization, 27(1), 73–102. https://doi.org/10.1007/s11151-005-4920-y

Berger, A. N., & Bonaccorsi di Patti, E. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. Journal of Banking and Finance, 30(4), 1065–1102. https://doi.org/10.1016/j.jbankfin.2005.05.015

Bodhanwala, R. J. (2014). Testing the Efficiency of Price-Earnings Ratio in Constructing Portfolio. IUP Journal of Applied Finance, 20(3).

Champion, D. (1999). Finance: the joy of leverage. Harvard Business Review, 77(4), 19–22.

Fan, J. P. H., Titman, S., & Twite, G. (2012). An international comparison of capital structure and debt maturity choices. Journal of Financial and Quantitative Analysis, 47(1), 23–56. https://doi.org/10.1017/S0022109011000597

Gitman, L. J., Juchau, R., & Flanagan, J. (2015). Principles of managerial finance. Pearson Higher Education AU.

Hadlock, C. J., & James, C. M. (2002). Do banks provide financial slack? Journal of Finance, 57(3), 1383–1419. https://doi.org/10.1111/1540-6261.00464

Hasan, M. B., Ahsan, A. F. M. M., Rahaman, M. A., & Alam, M. N. (2014). Influence of Capital Structure on Firm Performance: Evidence from Bangladesh. International Journal of Business and Management, 9(5), 184–194. https://doi.org/10.5539/ijbm.v9n5p184

Haugen, R. A., & Pappas, J. L. (n.d.). Equilibrium in the Pricing of Capital Assets, Risk-Bearing Debt instruments and the Question of Optimal Capital Structure," Journal of Financial and Quantitative Analysis (June 1971), pp. 943-954. Yutaki Imai and Mark E. Rubinstein.

Comment." and Robert A. Haugen and James L. Pappas." Reply," Journal of Financial and Quantitative Analysis (September 1972), 1995–2004.

Jensen, M. C., & Meckling, W. H. (1979). Theory of the firm: Managerial behavior, agency costs, and ownership structure. In Economics social institutions (pp. 163–231). Springer.

Kasozi, S. J. (2009). the Capital Structure Practices of Listed Firms in South Africa Stephen Jason Kasozi November 2009. November, 1–150.

Lipson, M. L., & Mortal, S. (2011). Liquidity and Capital Structure. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.887413

Lislevand, C. J. (2012). The effect of capital structure on microfinance institutions performance. Universitetet i Agder; University of Agder.

Meero, A. A. (2015). The Relationship between Capital Structure and Performance in Gulf Countries Banks: A Comparative Study between Islamic Banks and Conventional Banks. International Journal of Economics and Finance, 7(12), 140. https://doi.org/10.5539/ijef.v7n12p140

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13(2), 187–221.

Nirajini, A., & Priya, K. B. (2013). Impact of Capital Structure on Financial Performance of the Listed Trading Companies in Sri Lanka. International Journal of Scientific and Research Publications, 3(5), 1–9.

Roden, D. M., & Lewellen, W. G. (1995). Silver Anniversary Commemoration (Summer, 1995). Management, 24(2), 76–87.

Saad, N. M. (2010). Corporate Governance Compliance and the Effects To Capital Structure in Malaysia. International Journal of Economics and Finance, 2(1), 105–114. https://doi.org/10.5539/ijef.v2n1p105

San, O. T., & Heng, T. B. (2011). Capital structure and corporate performance of Malaysian construction sector. International Journal of Humanities and Social Science, 1(2), 28–36.

Stiglitz, J. E. (1969). A re-examination of the Modigliani-Miller theorem. The American Economic Review, 59(5), 784–793.