CAPITAL STRUCTURE DETERMINANTS OF PLANTATION SUB-SECTOR COMPANIES IN INDONESIA STOCK EXCHANGE PERIOD 2014 – 2018

Septian Wildan Mujaddid[1), Bambang Santoso Marsoem[2)]
[1)] Postgraduate Student, Mercu Buana University, Jakarta, Indonesia
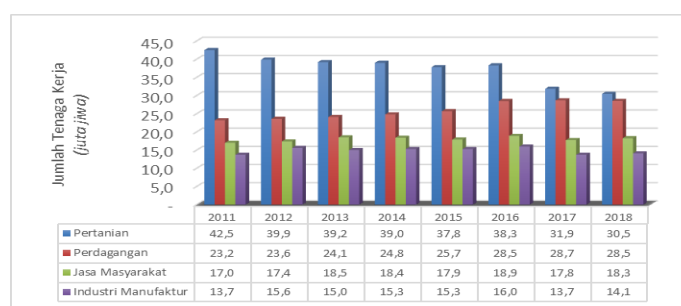[2)] Postgraduate Lecturer, Mercu Buana University, Jakarta, Indonesia

Abstract: The purpose of this study is to analyze the factors that influence the Debt to Asset Ratio which is a proxy of Capital Structure as the dependent variable. The independent variables studied as determinants of Capital Structure (DAR) include Size (SIZE), Profitability (ROA), Asset Structure (SA), and Corporate Liquidity (CR) using regression model. The population in this study are plantation sub-sector companies listed on the Indonesia Stock Exchange for the period 2014 - 2018. The findings suggest that ROA negatively significant affect DAR, while SA positively significant affect DAR. On the other hand, both SIZE & CR have no significant relationship with DAR.

Keywords: DAR, ROA, SA, CR

INTRODUCTION

The agricultural sector has an important role in the Indonesian economy with a contribution to Gross Domestic Product (GDP) reaching 12.81 percent or ranks third after processing and trade in 2018 (BPS, 2019). In addition to playing a role in the formation of GDP, the agricultural sector is also the business sector that absorbs the most labor in Indonesia. The following is a comparison chart of the four main employment sectors throughout 2011 - 2018 which shows the dominance of the agricultural sector.

Source: BPS (2019), processed by researchers
**Figure 1. Comparison of Workers who work in Major Business Fields
in Indonesia period 2011 - 2018**

This is also reflected in the majority of the business sectors of agricultural sector issuers, in which 18 out of 20 agricultural sector listed companies listed on the Indonesia Stock Exchange (IDX) as at 31 December 2018 were companies engaged in plantations with oil palm as its main commodity.

Table 1. Agricultural Sector Issuers on the Indonesia Stock Exchange in 2018

No.	Subsector	Number of Issuers
1	Food Crops	1
2	Plantation	18
3	Fishery	1
	Amount	20

Source: IDX, processed by researchers (2019)

Palm oil is the main commodity of plantation products in Indonesia which acts as a producer of foreign exchange besides oil and gas. As the world's largest producer and exporter of palm oil, in 2017 the foreign exchange contribution of palm oil commodity exports reached USD 20,724,000,000 or around Rp240 trillion, outperforming foreign exchange from other commodities (GAPKI, 2019).

LITERATURE REVIEW

1. Agency Theory

Agency theory is a theory put forward by Jensen & Meckling (1976) in their research entitled "Theory of the Firm: Managerial Behavior, Agency Cost and Ownership Structure". The theory explains the potential problems that arise, which are often referred to as agency relationships, when someone or more (the principal) employs another person (the agent) to carry out some activities on their behalf (the principal) which involve the delegation of authority in decision making by the agent. The agency relationship itself is an agreement in which one or more people (owners) are involved with another person (agent) to perform several services on their behalf, which entails entrusting some of the decision making power to the agent (Jensen and Meckling, 1976).

2.   Asymmetric Information Theory

The financial statements are prepared to be used by various parties, including the internal company itself such as managers, employees, labor unions, and others. The parties with the most interests in the financial statements are external users (shareholders, creditors, the government, the public). One challenge that will arise between agents and principals is the information asymmetry (information asymmetry).

3.   Pecking Order Theory

Pecking order theory is based on conditions where management has more information about the company rather than shareholders, or which investors have less information than company management about the value of the company. Those difference in information is referred to the information asymmetry. Pecking order theory assumes that companies prefer the use of internal financing sources rather than external financing. The use of external financing sources in the form of debt and issuance of shares to the public is the last choice after the source of internal source of financing runs out.

4.   Modigliani-Miller's Capital Structure Concept (MM Theory)

Capital structure is a concept regarding the proportion of funding of company assets that comes from short-term debt, long-term debt and company equity (Utami & Damayanti, 2018). The approach commonly used to measure a company's capital structure is to use Debt to Equity Ratio (DER) and Debt to Asset Ratio (DAR). DER shows the ratio between the company's total liabilities compared to its total equity, while DAR shows the company's total liabilities compared to their total assets. The theory was introduced by Modigliani & Miller (1958) in his article entitled "Capital Costs, Corporate Finance, and Investment Theory" of the company. Modigliani and Miller assess the value of a company that has debt (V_L) is the same as the value of a company that has no debt (V_U).

5.   Modigliani Theory - Miller with Taxes

Modigliani - Miller (MM) approach to tax is a continuation of the MM without tax approach proposed by Modigliani & Miller (1958). In the MM approach without tax, Modigliani and Miller argue that the policy in determining the composition of the company's capital structure has no influence on firm value. Modigliani and Miller argue that the value of a company that has debt (V_L) is the same as the value of a company that has no debt (V_U).

$$V_L = V_U + Tax\ Shield$$

6.   *Trade-Off Theory*

The trade-off theory was first introduced by Modigliani & Miller (1963) in their article entitled "Corporate Income Taxes on the Cost of Capital: A Correction". The article was issued to refine their initial model which previously took into account company tax but ignored individual tax.

7. Previous Studies

Here are some of the previous studies from national journals which is a reference in this study:

Table 2. Previous Studies from National Journals

No.	Researcher & Year	Method	Independent Variable			
			Firm Size	*ROA*	*SA*	*CR*
1.	Nugroho, Sigit Dani, et. al (2011)	Multiple linear regression	(+) sig		(+) sig	(+) sig
2.	Margaretha, Farah & Aditya RR (2010)	Multiple linear regression	(+) sig	Not sig	Not sig	Not sig
3.	Joni & Lina (2010)	Multiple linear regression	Not sig	(-) sig		
4.	Sudarno, Riza FH (2013)	Multiple linear regression	(+) sig	(-) sig	Not sig	
5.	Yusintha, P & Erni Suryandari (2010)	Multiple linear regression	(+) sig	(-) sig	Not sig	
6.	Ridloah, S (2011)	Multiple linear regression	Not sig	(-) sig	Not sig	(+) sig
7.	Liem, JH et. al (2013)	Multiple linear regression	Not sig	(-) sig	(+) sig	
8.	Hartoyo, AKW, et. al (2014)	Multiple linear regression	Not sig	Not sig	Not sig	
9.	Nuswandari, Cahyani (2013)	Multiple linear regression	(+) sig	(-) sig		
10.	Maryanti, Eny (2016)	Multiple linear regression		Not sig	Not sig	

Source: Processed by researchers

Table 2. Previous Studies from International Journals

No.	Researcher & Year	Method	Independent Variable			
			Firm Size	*ROA*	*SA*	*CR*
1.	Sheluntcova, Maria (2014)	Multiple linear regression	(-) sig	(-) sig	(-) sig	(-) sig
2.	Alipour, Mohammad, et al. (2015)	Multiple linear regression	(-) sig	(-) sig	(+) sig	Not sig
3.	Acaravci, Songul Kakilli (2014)	Multiple linear regression	(-) sig	(-) sig	(-) sig	
4.	Yousefzadeh, Nasrin, et al. (2014)	Multiple linear regression	(+) sig	(-) sig	(+) sig	
5.	Singh, Dharmendra (2016)	Multiple linear regression	(+) sig	(-) sig	(-) sig	(-) sig
6.	Wahab, Siti NAA & Nur Ainna Ramli (2014)	Multiple linear regression	(-) sig	Not sig	(+) sig	(-) sig
7.	Pattweekongka, S & Kulkanya Napompech (2014)	Multiple linear regression		(-) sig	(+) sig	(-) sig
8.	Couto, Gualter and Victor Chissingui (2016)	Multiple linear regression	(+) sig	(-) sig	(-) sig	(+) sig
9.	Thippayana, Pornpen (2014)	Multiple linear regression	(+) sig	(-) sig	Not sig	
10.	Serghiescu, L and Vaidean, VL (2014)	Multiple linear regression	(+) sig	(-) sig	Not sig	(-) sig
11.	Gonzales Victor M & Francisco Gonzales (2011)	Multiple linear regression		(-) sig	(+) sig	
12.	Bauer, Patrik (2014)	Multiple linear regression	(+) sig	(-) sig	(-) sig	
13.	Masnoon, Maryam & Abiha Saeed (2014)	Multiple linear regression	Not sig	(-) sig	Not sig	(-) sig

14.	Kirwok, Gladys Jeruto (2017)	Multiple linear regression	(+) sig		Not sig	(-) sig
15.	Sari, DP, Noer AA, A. Kurniasih (2017)	Panel data regression		(-) sig	(-) sig	(-) sig
16.	Ting, Irene Wei Kiong and Hooi Hooi Lean (2011)	Multiple linear regression	(-) sig	(+) sig	(-) sig	

Source: Processed by researchers

RESEARCH METHODS

Types of research

This type of research is causality research, namely research that aims to test hypotheses and determine the relationship and influence between two or more variables on other variables. This study aims to examine the effect of independent variables, namely company size, profitability, asset structure and liquidity on the dependent variable, namely capital structure.

Operational Definition and Variable Measurement

This study uses two types of variables, namely the dependent variable and the independent variable. Capital Structure (Y) in this study is used as the dependent variable. Size (X_1), Profitability (X_2), Asset Structure (X_3), and Liquidity (X_4) as independent variables.

FINDINGS AND DISCUSSION

Plantation sub-sector companies dominate the issuers of the agricultural sector on the Indonesia Stock Exchange (IDX). Based on the research limitations, there are 15 issuers that meet the criteria of being listed on the IDX since the beginning of 2014 and consistently delivering financial reports until 2018.

Table 3. List of Samples of Plantation Subsector Issuers on the IDX

No.	Code	Company Name	Listing Date
1	AALI	PT Astra Agro Lestari Tbk	09/12/1997
2	ANJT	PT Austindo Nusantara Jaya Tbk	08/05/2013
3	BWPT	PT Eagle High Plantations Tbk	27/10/2009
4	DSNG	PT Dharma Satya Nusantara Tbk	14/06/2013
5	GOLL	PT Golden Plantation Tbk	23/12/2014
6	GZCO	PT Gozco Plantations Tbk	30/05/2011
7	JAWA	PT Jaya Agra Wattie Tbk	05/07/1996
8	LSIP	PT PP London Sumatra Indonesia Tbk	16/01/2013
9	PALM	PT Provident Agro Tbk	12/07/2018

10	SGRO	PT Sampoerna Agro Tbk	08/10/2012
11	SIMP	PT Salim Ivomas Pratama Tbk	09/06/2011
12	SMAR	PT Sinar Mas Agro Resources and Technology Tbk	20/11/1992
13	SSMS	PT Sawit Sumbermas Sarana Tbk	12/12/2013
14	TBLA	PT Tunas Baru Lampung Tbk	14/02/2000
15	UNSP	PT Bakrie Sumatera Plantations Tbk	06/03/1990

Source: Indonesia Stock Exchange (2019), processed by researchers

Table 4. Descriptive Statistics of Debt to Asset Ratio (DAR) Variables

Tahun	2014	2015	2016	2017	2018
Minimum	0,1540	0,1710	0,1920	0,1647	0,1730
Maximum	0,8610	0,8910	0,9100	1,0220	1,1070
Mean	0,5235	0,5545	0,5410	0,5451	0,5674
Std. Dev	0,1818	0,1759	0,1895	0,2092	0,2459
N	15	15	15	15	15

Source: Data Processing Eviews 10

Table 5. Descriptive Statistics of Company Size Variables (in IDR Tn.)

Tahun	2014	2015	2016	2017	2018
Minimum	1,975	2,163	2,376	2,471	1,992
Maximum	30,996	31,697	33,062	33,859	34,666
Mean	10,414	11,466	12,114	12,482	13,229
Std. Dev	8,322	8,640	9,333	9,580	10,064
N	15	15	15	15	15

Source: Data Processing Eviews 10

Table 6. Descriptive Statistics of Variables Return on Assets (ROA)

Tahun	2014	2015	2016	2017	2018
Minimum	0,0034	-0,0310	-0,4530	-0,1110	-0,1380
Maximum	0,1410	0,0820	0,0990	0,0830	0,0570
Mean	0,0560	0,0124	-0,0013	0,0218	-0,0183
Std. Dev	0,0395	0,0333	0,1334	0,0602	0,0604
N	15	15	15	15	15

Source: Data Processing Eviews 10

Table 7. Descriptive Statistics of Asset Structure Variables (SA)

Tahun	2014	2015	2016	2017	2018
Minimum	0,1650	0,5010	0,4680	0,4500	0,3140
Maximum	0,9010	0,9190	0,9176	0,9165	0,8890
Mean	0,6061	0,6861	0,6820	0,6855	0,6241

Std. Dev	0,1879	0,1207	0,1274	0,1481	0,1757
N	15	15	15	15	15

Source: Data Processing Eviews 10

Table 8. Current Variable Descriptive Statistics (CR)

Tahun	**2014**	**2015**	**2016**	**2017**	**2018**
Minimum	0,1812	0,1837	0,1152	0,1272	0,0421
Maximum	7,3870	2,2210	3,2853	5,5226	5,2770
Mean	1,3148	0,9678	1,1956	1,4396	1,5417
Std. Dev	1,7648	0,5015	0,8145	1,5304	1,4925
N	15	15	15	15	15

Source: Data Processing Eviews 10

Table 9. Stationary Test of DAR Variables

Null Hypothesis : D(DAR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC. maxlag=11)

	t-statistic	*Prob.**
Augmented Dickey-Fuller test statistic	-11.22558	0.0001
1% level	-3.522887	
5% level	-2.90177	
10% level	-2.588280	

Source: Data Processing Eviews 10

Table 10. Stationary Test Variable Company Size (SIZE)

Null Hypothesis : D(SIZE) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC. maxlag=11)

	t-statistic	*Prob.**
Augmented Dickey-Fuller test statistic	-8.537526	0.0000
1% level	-3.522887	
5% level	-2.901779	
10% level	-2.588280	

Source: Data Processing Eviews 10

Table 11. Stationary Test of ROA Variables

Null Hypothesis : D(ROA) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC. maxlag=11)

	t-statistic	*Prob.**
Augmented Dickey-Fuller test statistic	-6.157160	0.0000

1% level	-3.521579	
5% level	-2.901217	
10% level	-2.587981	

Source: Data Processing Eviews 10

Table 12. Stationary Test of ROA Variables

Null Hypothesis : D(SA) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC. maxlag=11)

	t-statistic	*Prob.**
Augmented Dickey-Fuller test statistic	-6.453454	0.0000
1% level	-3.521579	
5% level	-2.901217	
10% level	-2.587981	

Source: Data Processing Eviews 10

Table 13. Descriptive Statistics of Current Ratio (CR) Statistics

Null Hypothesis : D(CR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC. maxlag=11)

	t-statistic	*Prob.**
Augmented Dickey-Fuller test statistic	-6.299649	0.0000
1% level	-3.521579	
5% level	-2.901217	
10% level	-2.587981	

Source: Data Processing Eviews 10

Discussion

Based on the analysis of the results of the research described previously, this section describes the discussion to prove the hypothesis. The discussion was carried out by describing the strong influence between independent variables consisting of SIZE, ROA, SA and CR on DAR on plantation subsector companies listed on the Indonesia Stock Exchange during the period 2014 to 2018. Description of the strength of influence between variables then compared with empirical evidence that obtained in the field and theories that support the hypothesis. The following stages of the discussion are based on the path between the variables in the model.

Analysis of the Effect of Company Size on Capital Structure

T-test results of company size variables indicate that Company Size (SIZE) partially has no effect on DAR. These results are not in line with the hypothesis which states that company size is suspected to have a negative effect on Capital Structure proxied by DAR. The results showed that Company Size (SIZE) has not been taken into consideration in

determining DAR, this is because the company's total assets are not the only factor that determines the company's capital structure. In carrying out its financing activities, the company will first use internal funds, then only use loans from external parties or offer shares to obtain capital.

The results of this study reinforce several previous studies, including Liem (2013), Hartoyo (2014) and Masnoon (2014). In contrast, the results of this study are not in line with research by Sheluntcova (2014), Acaravci (2014), Alipour (2015) and Wahab (2014) who state that CR has a negative effect on DAR.

Analysis of the Effect of Return on Assets (ROA) on DAR

T-test results of profitability variables (ROA) indicate that ROA partially has a negative effect on DAR. Thus, these results are in line with the hypothesis which states that profitability (ROA) is thought to have a negative effect on Capital Structure proxied by DAR. Its negative influence is supported by research data, for example between 2014 to 2018, in average LSIP has a ROA 6.9% with a debt to total asset ratio (DAR) of 17.9%, while in average UNSP which has a lower ROA of -5.3% has a higher DAR of 95.8%.

Increased profitability as indicated by ROA will further strengthen the company's capital structure. Generally, the better the company's capital structure, the less likely it is that the Company will seek external funding through bank debt or bond issuance. This is based on the Pecking Order Theory where investors will prioritize the use of internal funds owned by the company (Myers, 1984).

The results of this study reinforce several previous studies, including Sari (2017), Sheluntcova (2014), Alipour (2015), and Couto (2016). In contrast, the results of this study are not in line with Ting (2011) who state that CR has a positive effect on DAR.

Analysis of the Effect of Asset Structure on Capital Structure

The t test results of the Asset Structure variable (SA) indicate that SA partially has a positive effect on DAR. Its positive influence is supported by research data, for example between 2014 to 2018, in average LSIP has a SA 60.4% with a debt to total asset ratio (DAR) of 17.9%, while in average JAWA which has a higher SA of 90.5% has a higher DAR of 68.3%. Thus, these results are in line with the hypothesis which states that Asset Structure (SA) is thought to have a positive effect on Capital Structure proxied by DAR.

The results of this study reinforce several previous studies, including Alipour (2015), Yousefzadeh (2014), Pattweekongka (2014), Liem (2013), who stated that CR had a significant positive effect on DAR. In contrast, the results of this study are not in line with research by Couto (2016), Sheluntcova (2014), Bauer (2014) and Ting (2011) who state that CR has a negative effect on DAR.

Analysis of the Effect of Liquidity (CR) on DAR

Liquidity variable t test results indicate that the Current Ratio (CR) partially has no effect on the DAR. As such, these results are not in line with the hypothesis that liquidity proxied by Current Ratio (CR) is thought to have a positive effect on Capital Structure proxied by DAR. If the company's liquidity is in good condition, the Company will more

easily obtain financing for its working capital needs so that the Company's capital structure tends to increase with a relatively low level of risk. With a low level of risk it will attract creditors and debt bond investors to provide funding to the company.

The results of this study reinforce several previous studies, including Alipour (2015) and Margaretha (2010), who stated that CR had no significant effect on DAR. In contrast, the results of this study are not in line with research by Couto (2016), Ridloah (2011) and Nugroho (2011) who state that CR has a positive effect on DAR neither Sheluntcova (2014), Pattweekongka (2014) and Serghiescu (2014) who state that CR has a negative effect on DAR.

CONCLUSION AND SUGGESTION
Conclusion
Based on the results of testing and data analysis using the Fixed Effect Model on SIZE, ROA, SA and CR variables, it can be concluded as follows:
1. The results showed that company size did not affect DAR
2. The results show that ROA has a negative effect on DAR
3. The results showed that the Asset Structure (SA) had a positive effect on DAR
4. The results showed that liquidation (CR) had no effect on DAR.

Suggestion
Based on the results of the discussion and conclusions regarding the variables which include SIZE, ROA, SA and CR on DAR in plantation sub-sector companies, researchers would like to propose suggestions for consideration as follows:
1. For the management of plantation subsector companies listed on the Indonesia Stock Exchange (BEI) in 2014 - 2018 before determining the capital structure, it should consider the variables that affect the capital structure, namely ROA and SA.
2. Based on the research results it is known that the size of the company does not affect DAR, so it is recommended to investors who will invest their shares not to focus on the size of the company alone, because even if the company is a large company, the company will tend to use its own capital and debt as a complement.
3. Based on the results of the study it is known that liquidation has no effect on DAR, this shows that the plantation sector companies listed on the Indonesia Stock Exchange in 2014 - 2018 use a little long-term debt. So it is advisable for investors to pay attention to the level of company liquidity before investing, because companies that have high liquidity will tend to use their own capital.
4. The addition of variables that affect capital structure such as business risk, growth, managerial ownership, type of company, is not limited to using only the variables in this study.

REFERENCE
Acaravci, S. K. (2014). "The Determinants of Capital Structure: Evidence from the Turkish Manufacturing Sector". *International Journal of Economics and Financial Issues*. Vol. 5 No. 1, 158-171.

Alipour, M., Mohammadi, M. F. S., & Derakhshan, H. (2015). "Determinants of Capital Structure: an Empirical Study of Firms in Iran". *International Journal of Law and Management*. Vol. 57 No. 1, 53-83.

Bauer, Patrik. (2014). "Determinants of Capital Structure Empirical Evidence from the Czech Republic." *Czech Journal of Economics and Finance*. Vol. 1, 2 – 21.

Baker, M. and Wurgler, J. (2002), "Market Timing and Capital Structure", *Journal of Finance*, Vol. 57 No. 1, 1-32.

Cornelli, F., Portes, R., Schaffer, M. (1996), "The Capital Structure of Firms in Central and Eastern Europe". *CEPR Discussion Paper*, 1392. 1-35

Couto, G. & Victor Chissingui. (2016) "Determinant Factors of Capital Structure: an Application to the Portuguese Market". *Egitania Sciencia Journal*. Vol. 4 (1), 176 - 195

Firnanti, F. (2011). "Faktor-faktor yang Mempengaruhi Struktur Modal Perusahaan Manufaktur di Bursa Efek Indonesia". *Jurnal Bisnis dan Akuntansi*. Vol. 13, 119-128.

Gonzales Victor M & Francisco Gonzales. (2012). "Firm Size and Capital Structure: Evidence Using Dynamic Panel Data." *Applied Economics*. Vol. 44, 4745–4754.

Hall, G.C., Hutchinson, P.J. and Michaelas, N. (2004), "Determinants of capital structures of European SMEs", *Journal of Business Finance and Accounting*, Vol. 31 No. 5/6, 711 - 728.

Hanafi, MM dan Halim, A. (2005). Analisis Laporan Keuangan. UPP AMP YKPN: Yogyakarta.

Hartoyo, A. K. W., Khafid, M., & Agustina, L. (2014). "Faktor-Faktor yang Mempengaruhi Struktur Modal Perusahaan Tekstil dan Garmen di BEI". *Accounting Analysis Journal*. Vol. 3 (2), 158-172.

Jensen, M. and Meckling, W. (1976). "Theory of the firm: Managerial Behavior, Agency Cost and Ownership Structure", *Journal of Financial Economics*, Vol. 43, 271-281.

Joni, J., & Lina, L. (2010). Faktor-Faktor yang Mempengaruhi Struktur Modal. *Jurnal Bisnis dan Akuntansi*. Vol. 12(2), 82-97.

Kirwok, Gladys Jeruto. (2017). "Determinants of Capital Structure in the Automobile Industry: Case Study Nakuru Town". *International Journal of Innovative Research & Development*. Vol. 6 Issue 9, 226 – 259.

Liem, J. H., Murhadi, W. R., & Sutejo, B. S. (2013). "Faktor-Faktor yang Mempengaruhi Struktur Modal pada Industri *Consumer Goods* yang Terdaftar di BEI Periode 2007-2011". *Calyptra: Jurnal Ilmiah Mahasiswa Universitas Surabaya*. Vol.2 No.1, 1-11.

Margaretha, F., & Ramadhan, A. R. (2010). "Faktor-faktor yang Mempengaruhi Struktur Modal pada Industri Manufaktur di Bursa Efek Indonesia". *Jurnal Bisnis dan Akuntansi*. Vol 12 (2), Hal. 119-130.

Maryanti, E. (2016). "Analisis Profitabilitas, Pertumbuhan Perusahaan, Pertumbuhan Penjualan dan Struktur Aktiva terhadap Struktur Modal pada Perusahaan Sektor Industri Barang Konsumsi yang terdaftar di Bursa Efek Indonesia (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun 2012-2014)". *Riset Akuntansi dan Keuangan Indonesia*. Vol. 1 (2), 143-151.

Masnoon, Maryam & Abiha Saeed. (2014). "Capital Structure Determinants of KSE Listed Automobile Companies". *European Scientific Journal*. Vol. 10, No. 13, 451 – 461.

Modigliani, F. and Miller, M.H. (1958), "The Cost of Capital, Corporation Finance and the Theory of Investment". *American Economic Review*. Vol. 48, 261-297.

Modigliani, F. and Miller, M.H. (1963), "Corporate Income Taxes and the Cost of Capital: a Correction". *American Economic Review*. Vol. 53 No. 3, 433-443.

Miller, M. (1977), "Debt and Taxes", *Journal of Finance*. Vol. 32, 261-275

Myers, S. C. and Majluf, N. (1984). "Corporate Finance and Investment Decisions When Firms Have Information That Investors Do Not Have". *Journal of Financial Economics.* Vol. 13, 187-221

Nugroho, Sigit Dani, Hermanto Siregar, Adler Haymans Manurung dan Nunung Nuryartono. (2015). "Determinan Struktur Modal Perusahaan Perkebunan di Bursa Efek Indonesia." *Finance and Banking Journal*. Vol. 17, No. 02, 79 – 90.

Nuswandari, Cahyani (2013). "Determinan Struktur Modal dalam Perspektif *Pecking Order Theory* dan *Agency Theory*". *Jurnal Dinamika Akuntansi Keuangan dan Perbankan*, Vol. 2 (1), 92-102.

Pattweekongka, S & Kulkanya Napompech. (2014). "Determinan Struktur Modal dalam Perspektif *Pecking Order Theory* dan *Agency Theory*". *Jurnal Dinamika Akuntansi Keuangan dan Perbankan*. Vol. 2(1), 117 – 124.

Ridloah, S. (2010). "Faktor Penentu Struktur Modal: Studi Empirik pada Perusahaan Multifinansial". *Jurnal Dinamika Manajemen*. Vol. 1 (2), 91-101

Sari, DP, Noer AA, Augustina Kurniasih. (2017). "Determinant of Long-Term Liabilities the Agricultural Company: Empirical Evidence from the Indonesian Stock Exchange". *International Journal of Current Research in Multidisciplinary.* Vol. 2, No. 7, 14 – 20.

Serghiescu, L and Viorela-Ligia Vaidean. (2014). "Determinant Factors of the Capital Structure of a Firm - an Empirical Analysis". *Procedia - Social and Behavioral Sciences*. Vol. 15, 1447 – 1457.

Sheluntcova, M. (2014). "Capital Structure of Private Pharmaceutical Companies in Russia". *International Journal of Economics & Management*, Vol. 8 No. 2, 114-120.

Singh, D. (2016). "A Panel Data Analysis of Capital Structure Determinants: an Empirical Study of Non-Financial Firms in Oman". *International Journal of Economics and Financial Issues*, Vol. 6 No. 4, 130-145.

Sudarno, Riza FH. (2013). "Analisis Faktor-Faktor yang Mempengaruhi Struktur Modal pada Perusahaan Manufaktur Terdaftar di Bursa Efek Indonesia Periode 2007 – 2011". *Diponegoro Journal of Accounting,* Vol. 2, No. 2, 1-12.

Thippayana, Pornpen. (2014). "Determinants of Capital Structure in Thailand" *Procedia - Social and Behavioral Sciences*. Vol. 143, 1074 – 1077

Ting, Irene Wei Kiong and Hooi Hooi Lean. (2011). "Capital Structure Of Government-Linked Companies In Malaysia". *Asian Academy of Management Journal of Accounting and Finance*, Vol. 7, No. 2, 137 – 156.

Wahab, Siti Nur Aqilah Ab & Nur Ainna Ramli. (2014). "Determinants of Capital Structure: An Empirical Investigation of Malaysian Listed Government Linked Companies (GLCs)". *International Journal of Economics and Financial Issues.* Vol. 4 No. 4, 930-945.

Yousefzadeh, N., Aazami, Z., Shamsadini, H., & Abousaiedi, M. (2014). "Determinants of Capital Structure of Iranian Companies Listed in Tehran Stock Exchange: A structural Equation Modeling Approach". *Indian Journal of Commerce and Management Studies*, Vol. 5 No. 2, 73-81.

Yusintha, P., & Suryandari, E. (2016). Analisis Faktor-faktor yang Mempengaruhi Struktur Modal. *Journal of Accounting and Investment*, Vol. 11 (2), 179-188.