THE INFLUENCE OF FIRM AGE, TANGIBILITY, OPERATING REVENUE, AND DEPRECIATION RATIO TOWARD CAPITAL STRUCTURE ON AUTOMOTIVE AND COMPONENTS COMPANIES LISTED IN INDONESIA STOCK EXCHANGE PERIOD 2007 – 2018

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ABSTRACT

Finance plays an important role in the management of a company whose needs funds. It is important to take care of funding management in the most effective and efficient way in order to keep the business running well. When the funds are inadequate, the company will suffer. That is why it is very important for the company to estimate the capital required before running the business. While estimating the capital structure of a company, necessary care has to be taken to identify the optimal capital structure. There are two components of capital structure, debt and equity that must be managed properly so that the decisions taken can maximize the firm value. A firm should minimize the cost of funds by selecting the optimal capital structure. There are no perfect theory has been developed to determine the exact optimal capital structure of the firm. This research is conducted in order to know whether firm age, tangibility, operating revenue, and depreciation ratio influence the capital structure. This study was also would compare the result of the previous research with this new one. Research objective used in this study is automotive and components companies that listed in Indonesia Stock Exchange for period 2007 - 2018 and publish its annual report which is available to be access by the public. By using quantitative research method and purposive sampling as a sampling technique, analysis is done through descriptive statistics and panel data regressions with random effect model to test the hypotheses. Findings of this research show that tangibility and operating revenue have an influence to the capital structure, while firm age and depreciation ratio do not have an influence to the capital structure. This research hopefully gives many advantages and benefits such as a wide knowledge about capital structure and can be used as a reference to conduct next research for academy. This research is also expected to be used as an information to corporate managerial and as consideration in deciding the optimal capital structure for the firm's financing decision.

Keywords: Firm age, tangibility, operating revenue, depreciation ratio, capital structure.

INTRODUCTION

Global development and dynamics are pushing countries to improve, increase or maintain their best condition of economic. Many countries adjust their capabilities to technological developments so that they can get benefits from the opportunities that exist all over the world. Indonesia is one of them. Ministry of industry in Indonesia has an initiative to prioritize and support five big industries in Indonesia to implement industrial revolution 4.0 (fourth industrial revolution) through enhancement in human capital, innovation, optimization and regulation. These five industries (food and beverage, textile, chemical, electronic, and automotive and components) are the sectors that already have contributed 60 % of export, 65 % of the employment in industrial sector, and 60 % contribution to GDP. Their readiness in technology and potential ability to adjust the technology advances is expected to be able to support the government's goal to increase global competitiveness and export market share and become the top ten of the world economic power. One of these industries is automotive and components industry which is consist of thirteen companies listed in Indonesia Stock Exchange (IDX). Supported by domestic market and strong investment from various well-known automotive companies, Indonesia wants to become the largest car manufacturer in ASEAN and now has become the second largest automotive exporter in the ASEAN region.

Factors that support the strength of those companies is still in questions, since company cannot control the external factors, while internal ones such as firm age, tangibility (Ullah *et al*, 2017), operating revenue, and depreciation ratio (Ahmed, 2015) could classified as the influential factors to capital structure. Different studies have provided their viewpoint about the theories of capital structure, but there are many assumptions of those theories that contact with one another. Regarding to those gaps, this study has to be taken in Indonesia as a developing country.

The main contributions of this study to the discipline and also to the practitioners are the determination of firm characteristics of the automotive and components companies listed in Indonesia Stock Exchange (IDX) on the capital structure.

PROBLEM STATEMENT

With regard to the above issues, this study aims to know the influence of firm age, tangibility, operating revenue, and depreciation ratio to the capital structure of automotive and components companies in Indonesia.

LITERATURE REVIEW

Modigliani and Miller's theory of capital structure stated that market value of the firm is not affected by financial leverage (Ullah *et al*, 2017,32) since the use of debt in capital structure could leads to agency cost. The Agency cost theory (Jensen and Meckling, 1976; Jensen, 1986) in Chen, *et al*. (2014, 1028) claims that the optimal utilization of debt could increase the value of shareholders but overwhelming debt financing may cause damage. Firms incur agency cost to ensure agents (managers) acting in

the best interests of principals (shareholders). When there is a separation between ownership and management, the conflict of goals between managers and owners and between different stakeholders emerges. According to Ross *et al*. (2008, 11), there are two kinds of agency cost, indirect (a lost opportunity) and direct (corporate expenditure that benefits management but costs the stockholders and expense that arises from the need to monitor management actions).

Myers (1984) on Ullah *et al.* ,32) mention that, the trade-off theory emerged because company needs to balance gains and costs of debt financing. It values the firm as the value of it unlevered plus the present value of the tax shield minus the present value of bankruptcy and agency costs. It can be concluded that in determining firm's value, a company have to balance its cost and benefit to achieve the optimum capital structure. A company would increase its debt financing to avoid financial distresses.

Pecking order theory of capital structure (Myers and Majluf, 1984) in Chen, *et al.* (2014, 1027) proposes that firms usually prefer internal finance to external finance and prefer debt to equity when internal finance is insufficient. This is to avoid adverse effect of asymmetric information that investors tend to believe that firms issue equity when stock prices are overpriced and therefore stock price would fall after stock issue is announced. Onofrei *et.al* (2015, 461) stated that the cost of issuance of new securities override other considerations.

Firm age is considered as a standard measurement of status in capital structure models. Petersen and Rajan in Ullah et.al (2017,33) stated that older firms have a higher debt ratio to maintain their rating and concluded that age has a positive relation to long term debt but negative to short term debt.

One of the important determinant of capital structure is tangibility (Imtiaz, 2016, 26). Tangible assets work as a collateral of borrowed fund, so high tangibility thus would induce to increased borrowing ability. Jensen and Meckling in Ullah et.al (2017) conveyed that the firm might shift their funding to riskier investment since they issued debt, so that firm's tangible asset could be used as a collateral to decrease the risk.

According to trade-off theory, profitable firms would employ more debt because of the tax shield that comes from increased leverage (Myers, 1984 in Imtiaz, 2016, 26). Highly profitable firms tend to increase their ability to meet the fixed obligation for debt repayment, so they will have more debt to take advantage of increased tax benefit at more attractive cost of debt.

Deangelo and Masulis (1980) in Ahmed (2015,2) proposes that a firm's optimum debt level is where the present value of tax saving from depreciation and investment equals the present value of cost of distress.

RESEARCH METHODOLOGY

The method used in this article to gather samples from the source of data with requirements or several conditions is purposive sampling (Sugiyono, 2015, 144). The sampling is confined to specific types of those that can provide the desired information because they conform to some criteria set by the researcher (Sekaran and Bougie, 2016, 248). Therefore, the requirements for the sample of this research are:

    a. The company is automotive and component industry listed in Indonesia Stock Exchange.
    b. The company's financial statement reported in Rupiah (IDR) denomination.
    c. The company has a positive income during the research period, 2007 - 2018.
    d. The company published its annual report and available to access by public.

With regard to the above requirements, not all companies listed in IDX could be taken as a sample. This research used only 9 companies out of 13 and 108 data for sample. It was analyzed by using multiple regression analysis. The table below shows the list of the company selected:

Table 1: Research Samples

| No.	Ticker	Company
1	ASII	PT. Astra Internasional Tbk
2	AUTO	PT. Astra Otoparts Tbk
3	GDYR	PT. Goodyear Indonesia Tbk
4	IMAS	PT. Indomobil Sukses Internasional Tbk
5	INDS	PT. Indospring Tbk
6	MASA	PT. Multistrada Arah Sarana Tbk
7	NIPS	PT. Nipress Tbk
8	PRAS	PT. Prima Alloy Steel Universal Tbk
9	SMSM	PT. Selamat Sempurna Tbk

The dependent variable in this study is capital structure, measured by debt ratio, which is the proportion of total assets financed by the firm's creditors (Gitman and Zutter, 2015, 126). The independent variables are (1) firm age, measured by deducting the present year with the year of inception. According to Ullah et al. (2017, 33), firm age is a standard measurement of status in capital structure model. Age implies better credibility and reputation in the market (Cadha and Sarma, 2015, 7). (2) tangibility,

determined by total fixed asset divided by total assets. Tangible asset are refers to the physical asset such as plant, machinery, and officers (Brealey et al., 2006, 1005). (3) operating revenue refers to earning the firm earned before interest and tax payment / EBIT (Ahmed, 2015), and (4) depreciation ratio measure the combination between depreciation expense and total asset (Ahmed, 2015). The equation for base model may follows as:

Capital Structure $= \beta_0 + \beta_1$ Firm Age $+ \beta_2$ *Tangibility* $+ \beta_3$ *Operating Revenue* $+ \beta_4$ *Depreciation Ratio* $+ \varepsilon$

Based on the theoretical review and previous researches, the model framework for the research will be pictured in Figure 1:

Figure 1 : Research Model
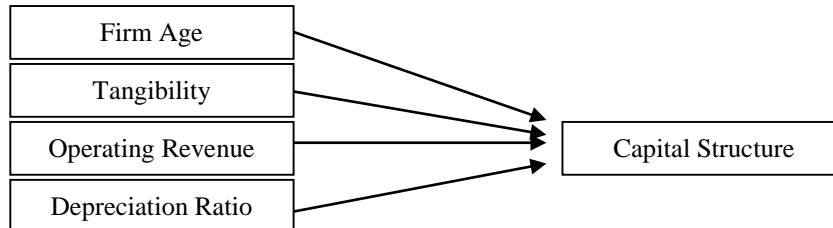
RESULTS AND DISCUSSION

This table below is hypothesis result.

Table 2: Hypothesis Result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.629	.064		9.775	.000
	AGE	.001	.002	.046	.517	.606
	TAN	-.165	.069	-.215	-2.404	.018
	OPR	.000	.000	-.427	-4.678	.000
	DEP	-.010	.030	-.031	-.343	.732

Table 2 above shows that age has no influence in capital structure. This result is not the same as the previous research by Ullah et.al (2017). The average age of nine companies are 20.1667 years, so it could be conclude that companies is considered to have a stable performance in managing its business. Tangibility has a negative influences to the capital structure. This result is same as the previous research by Imtiaz (2016, 26) that stated the negative influence of tangibility to capital structure, but contrast with Ahmed (2015, 462) which shows the positive correlation with capital structure. Firms with high tangibility would reduce their debt, so this result confirms the theory of agency cost. Operating revenue has an influence to capital structure, same conclusion with Imtiaz (2016, 26) that conclude the negative influence of this variable to capital structure, but has a different sign with Ullah *et.al* (2017, 32) and Ahmed (2015, 7) that show the positive impact of operating revenue to capital structure. Therefore, this result confirms the trade – off theory. The last factor, deprecation ratio has no influence in capital structure, contradicting with the research of Ahmed (2015,7).

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