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Examining the Firm Value Based on Signaling Theory

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***Abstract*—The value of the company is an important factor considered by the company to create increased prosperity of shareholders. With the increase in the value of the company reflected in the price book value, it will give a positive perception of the investor on the invested investment. Therefore, this article aims was to analyse the value of the company based on the company size, profitability, and debt level. This study was conducted on the Trading Sector Company of Production Goods and Retail Goods listed on the Indonesia Stock Exchange period 2014-2016. Based on the purposive sampling method obtained 158 company data as samples. Data Analysis Techniques Use regression analysis that begins with a classic assumption test. Hypothesis testing was conducted through T-Test, and the results showed that the company's size was positively influential towards the company's value, while profitability and debt levels did not affect the company's value.**

Keywords: debt level, firm value, size, profitability

I. INTRODUCTION

One of the goals of the company is to maximize the welfare of shareholder, therefore the company must seriously make efforts to achieve that goal [1-3]. Shareholder welfare relates to the company's market value, which became the most important measurement [1]. The company's assessment became essential for deriving stock prices, which became an important item in various models [2]. The firm value is determined based on the firmware's asset earning power [4]. If the company has higher earning powers of the company, it has a positive impact on greater profit and more efficient company assets. Therefore, the value of the company has increased. In addition to assets and profits, the company's debt policy also affects the company's value. The higher the debt, the higher the share price.

Consideration of the importance of corporate financial decisions to the firm value is disputed [5]. Some factors that influence firm value, profitability and leverage. Decisions regarding dividend decisions as well as decision of capital structure are chosen according to the benefits given. The company's debts provide benefits to tax gains that can increase the firm's value. Exchanges of debt for equity produce higher stock prices [6], while exchanges of equity for debt lower stock prices [7]. Higher financial leverage decrease firm value by increasing bankruptcy risk [1]. Fosu et al emphasized on Duck order and agency cost theories, that there is a link between the leverage levels of firm value [8].

The influences of profitability and leverage on firm value became a factor considered in financial decision making [9]. Efforts in maximizing company value and shareholder wealth are carried out by choosing the most efficient investment. The plan is considered so that the company can survive and thrive in the face of a highly competitive environment. If the company needs financial aspects, then the company can choose between internal and external funds. If the company uses internal funding sources, it will reduce the amount of cash stock. Whereas if the company does debt, it increases the risk of the debt. Capital structure and profitability are considered contributing in influencing the company's shares. Debt issuance in the presence of excess cash flow may convey positive signal to the market which is/replicated by an increase in firm value [10].

Various studies analyse firm value through several factors that are considered important effect. Ghosh analysed the role of leverage and profitability on the future value of the firm for an emerging economy, India [11]. The study proved that there is a non-linear relation between leverage, profitability and probability of increase in future value of the firm. Probability of increase in future value of firm reduces exponentially with the increase in leverage, whereas, it increases with the raise in dividend pay-out and profitability of the firm. Profitability is undoubtedly one of the major factors determining the firm value.

The influences of profitability and leverage on firm value became a factor considered / confirmed that profitability has a positive effect on firm value [9]. But on the other hand, when investors consider the influence of profitability on firm value, they are more focus on leverage's negative effect on the firm value. High level of debt may cancel the positive effect of profitability on firm value. The study also showed that the size of the firm has no significant effect on firm value. The leverage positively affects the value of firms without growth opportunities [5]. Obradovich and Gill analysed 333 firms listed on New York Stock Exchange (NYSE) for a period of 3 years from 2009-2011 [1]. The results show that financial leverage, firm size and return on assets positively impact the value of American firms. Supported by Sucuahi and

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Cambarihan which analyses profitability with the firm value using Tobin's Q model [3]. 86 diversified companies in the Philippines analysed through multiple regression. The results proved that profitability shows significant positive impact on the firmware's value.

Fosu et al analysed the UK firms and the study defined that leverage has a negative effect on firm value [8]. Adetunji analyses the relationship between financial leverage and firms ' value, as well as evaluate the effect of financial leverage on firms ' value [2]. A sample of 5 firms listed on Nigerian Stock Exchange (NSE) for a period of 6 years from 2007-2012 was used. The study proved that financial leverage has significant effect on firms ' value. The study concludes that financial leverage is a better source of finance than equity to firms when there is need to finance long-term projects. However, the use of debt financing in such firms may yield negative impact such as bankruptcy as well as low firm value.

Sunday [12] indicates that the higher financial leverage decrease firm value by increasing bankruptcy risk. Therefore, an optimal capital structure is necessary for every firm to enhance the market value the firm [13]. An optimal capital structure includes some debt, but not 100% debt. It is a ' best ' debt/equity ratio for the firm that minimizes the cost of financing and reduces the chances of bankruptcy. Cuong and Canh found that the optimal debt ratio should not exceed 59.27% because a higher debt ratio will have negative highlights on firm value [14]. Financial leverage plays an important role in increasing market value of the firm [13].

The phenomenon of firm values that have been tested on companies in different countries shows different results. The company's decision to determine the policy on capital structure and company characteristics is considered as a factor that provides signals for shareholder in investment decisions. Therefore, the study aims to analyse firm size, profitability and debt level rake to predict the value of the company based on the perspective of signalling theory. The significance of this research to expand the knowledge specifically in management accounting field.

Ross explain that the signalling model is related to activity choice by the manager [15]. Signalling Theory states that the manager or the company qualitatively has an information compared to outside parties and they use the certain sizes or facilities imply the quality of its company. At least there are four types of signal theory known in financial literature, namely 1) model signal maturity options debt, 2) the company's investment signal model, 3) signal model financial structure, and 4) the dividend signal model. Each model has an own consequences for both managers and shareholders, (investor) or a treasury holder. Shareholders or investors must use any understanding to suspect the possibility of the signals being signalled by the manager. If shareholders or investors do not attempt to seek information related to the signals, they will not be able to take advantage. So, any signal that the value of the company should be carefully examined.

Modigliani and Miller proposed the capital structure irrelevance theory, which states that under the assumption of a perfect capital market, the choice of bonds or stocks makes no difference to firm value; in other words, capital structure has no influence on firm value [4]. A perfect capital market does not have corporate tax or transaction costs, and when information asymmetry is not a concern, a firm’s value is determined by its ability to create value, no matter whether the capital it uses is from internal or external sources. The MM model fails to predict it because it considers only the tax saving effect of debt and ignores the cost of financial risk and agency cost when debt increases.

Zingales and Rajan found that large firms are more diversified than small ones, and face lower risk [16]. In addition, large firms have a low bankruptcy cost and are well known, which makes it easier to enter the stock market. When firms have the same profitability, the larger firm will have a relatively low level of debt [9]. Myers and Majluf pointed out that the problem of formation asymmetry is not as severe in big firms, and the information cost is also lower than for small firms [17]. Moreover, large firms prefer to use equity capital rather than debt capital, with Titman [18] arguing that small firms rely on the former because they have to face a high issue cost. Therefore, larger companies have access to obtain funding from equity capital. The company's ability is a positive signal for investors to invest and will have an impact on firm value. Previous studies have shown that firm size has a positive effect on firm value. Based on this explanation, the hypothesis proposed is:

H1: firm size has a positive effect on firm value

A. Profitability and Firm Value

Chen and Chen prove that the amount of earnings given to shareholders can increase firm value [9]. Profitability measurement is based on return on assets owned by the company. Return on assets shows the efficiency of management in managing its assets, as well as being a positive measurement in determining firm value. Ghosh analyses the role of profitability on the future value of the firm for an emerging economy, India [11]. The study proves that probability can increase future value of the firm. Based on this explanation, the hypothesis proposed is:

H2: Profitability has a positive effect on firm value

B. Leverage and Firm Value

Adetunji emphasizes that in fulfilling funding for operational and corporate activities, managers have a motive so that these decisions can bring benefits and can maximize the welfare of the owner [2]. The company has various alternative sources of funding to fund its investment. There are two categories, namely the internal financing sources which include reserves and retained earnings; external financing which includes long-term loans, bond issues, ordinary and preferred stock issues. To achieve an optimal capital structure, companies must be able to choose financial decisions that can have positive returns. Financial leverage is the extent to which fixed income securities (debt) are used in a firm's capital structure. Despite the initial statement of Modigliani and Miller [4] that there is no connection between leverage and firm value. In 1963, the study examined the influence of the tax on firm value into consideration, they revised this opinion and stated that issuing debt can help to increase firm value.

That corporate debt plays a role in determining firm value [5]. Strengthened by Myers stresses the negative effects of too much corporate debt on firm value, as it may motivate managers to forego profitable investment projects [19]. Because of bondholders' priority over the firm's cash flow relative to shareholders, managers could forego projects with positive net present value if the project's earnings go to the creditors [20]. Thus, we could expect a negative relationship between debt and firm value in the presence of growth opportunities. Based on this explanation, the hypothesis proposed is:

H3: Debt level has a negative effect on firm value

II. Research Methodology

This study predicts the value of the firm based on firm size, profitability and debt levels. While firm value is the dependent variable, while firm size, profitability and debt level are independent variables. Company data that are sampled come from 158 companies trading in manufactured goods and retail goods listed on the Indonesia Stock Exchange in the period 2014-2016. The following is the operationalization of variables in this study:

Firm size (X1) is measured by the logarithm of the total assets. Profitability (X2), measured based on return of assets (the return of assets equals the ratio of earnings before interests and taxes on total assets) the measurement was adopted from Zingales and Rajan [16]. Leverage (X3) is measured based on two measures for the leverage; one is the debt-equity ratio, which stands for the ratio of liabilities to shareholders' equity, while the other is the liability capitalization ratio, which stands for the ratio of liabilities to capital. Firm value (Y) is measured based on market value, and this is defined as the stock price per share at the end of the year.

Data analysis techniques in this study use multiple regression analysis to predict the effect of firm size, profitability and debt levels on firm value. Hypothesis testing in this study uses partial test.

III. Results and Discussion

The following table results in multiple regression analysis in this study:

TABLE I. MULTIPLE REGRESSION ANALYSIS

Variable	Coefficient	Sig.
Constant	-2.373	.084
Size (X1)	.108	.041
Profit (X2)	.038	.628
Debt (X3)	.051	.691

Source: secondary data processed, 2019

Based on the results of regression analysis, the regression equation in this study is:

VALUE = -2,373 + 0,108SIZE + 0,038PROFIT + 0,051DEBT + e

Hypothesis testing is done through the t test and the results show that firm size has a positive effect on firm value, while profitability and debt levels do not affect firm value.

A. *The Effect of Firm Size on Firm Value*

The results of hypothesis testing prove that company size has a positive effect on firm value with a significance value of 0.041 and a regression coefficient value of 0.108. These results are consistent with [9,11] that company size has a positive effect on firm value. The size of the company that is reflected in the value of total assets shows the size of assets and asset management which is considered a positive signal for investors towards managing company assets. In accordance with signalling theory, that information about assets provided by management can be used as a benchmark in investment decision making. The greater the size of the company, the more investor confidence increases and is reflected in the increase in the value of the company.

B. *The Effect of Profitability on Firm Value*

The results of hypothesis testing prove that profitability has no effect on firm value with a significance value of 0.628 and a regression coefficient value of 0.038. These results are not consistent with [9,11].

Profitability shows the company's ability to generate profits. Based on the profitability data of the sample companies, the majority of the company's profitability has decreased, but the amount is not significant. Therefore, a small change in profitability does not have an impact on increasing the value of the company. In accordance with the signalling theory that profitability reflects information and signals regarding the company's prospects in the future.

C. *The Effect of Debt Level on Firm Value*

The results of hypothesis testing prove that debt level has no effect on firm value with a significance value of 0.691 and a regression coefficient value of 0.051. These results are not consistent with [8,13,14].

Debt level reflected in leverage shows the portion of capital structure owned by the company, consisting of internal funding sources and external funding sources. Debt level is obtained by the company through debt issuance. Based on the debt level data on the sample company, the majority of the company's debt level has increased, but not significantly. Therefore, the increase in debt level has no effect on changes in the value of the company. According to the signalling theory, that the high value of the company's debt indicates negative information for the company. But insignificant changes in debt have no impact on declining company values

IV. Conclusion and Recommendation

The results showed that firm size has an effect on firm value, while profitability and debt level have no effect on firm value. This indicates that an increased firm size can provide a positive perception for investors in making investment decisions. While profitability and debt levels have no effect on firm value. Therefore, company management is expected to be able to manage profitability optimally, as well as pay off debt decisions by considering the optimal capital structure. Future research is expected to further emphasize other factors that can increase the value of the company, such as earning per share.

High earning per share will be a positive signal for investors to increase their investment and impact the company's value increase.

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