THE EFFECT OF PROFITABILITY AND SALES GROWTH ON STOCK PRICE: THE MEDIATING ROLE OF CAPITAL STRUCTURE

Yeye Susilowati, Stikubank University
Lie Liana, Stikubank University
Rahardwiyan Aristya Putra, Graduate Student of MMBL Binus Business School
Rofi Febriana, Graduate Student of MM Stikubank University

ABSTRACT

This research aims to analyze the effect of profitability and sales growth on stock price by considering capital structure as a mediation variable. This research used 82 companies listed in LQ45 between 2015 and 2019 as the sample. The data analysis employed the multiple linear regression method, and the Sobel test was utilized to test the mediation effect. The results revealed that profitability positively and significantly influenced the capital structure and stock prices. In addition, sales growth positively and significantly influenced stock prices but negatively and significantly affected stock prices. This research has proven that capital structure mediated the influence of profitability and sales growth on stock prices.

Keywords: Profitability, Sales Growth, Capital Structure, Stock Prices.

INTRODUCTION

The decision on capital structure is one of the crucial things faced by a manager. In this case, change of capital structure can influence funding capacity, risk, capital cost, investment, company's strategic decision, and prosperity of stockholder. The capital structure is optimal when risks and profits are balanced to accomplish company goals (Cai & Zhang, 2011). Other than that, investors and prospective investors constantly watch stock price fluctuation as one of the essential indicators to decide on buying, selling, and holding stock. Besides stock fluctuation, investors also need financial analysis. The analysis is conducted to check the company's condition related to profitability and sales growth. Profitability shows the company's performance level, while sales growth reflects the success of investment in the previous period, which can be used to predict future growth. It is also able to indicate demand and the company's competitiveness.

On the other hand, there is a research gap, as shown by the previous ones. Arifin (2017) stated that profitability negatively influenced the capital structure, while Al Umar et al. (2020) said that profitability positively influenced capital structure. It is also stated by Aveh & Awunyo-Vitor (2017) that profitability positively influenced stock prices. Meanwhile, Utami & Darmawan (2019) found that profitability did not influence stock prices. Besides, Wulandari & Paramita (2018) revealed that profitability negatively and significantly influenced stock prices. Deitiana (2015) also showed that sales growth negatively and significantly influenced stock prices. In contrast, the one conducted by Hanif (2017) uncovered that sales growth positively but not significantly influenced stock prices. However, Zare & Zare (2013) stated that sales growth positively and significantly influenced capital structure. Meanwhile, Hanif (2017) exposed that sales growth negatively influenced capital

structure. In addition, Menon (2016) disclosed that capital structure positively and significantly influenced stock prices, while Utami & Darmawan (2019) mentioned that capital structure did not influence stock prices.

Based on the research gap, there are several questions in this research: (1) How does profitability influence capital structure? (2) How does sales growth influence the capital structure? (3) How does profitability influence stock prices? (4) How does sales growth influence stock price? (5) How does capital structure influence the stock prices index? (6) Does capital structure mediate the influence of profitability on stock prices? (7) Does capital structure mediate the influence of sales growth on stock prices?

LITERATURE REVIEW

Signaling Theory

The signaling theory was put forward for the first time by Spence (1978), explaining that the sender (owned of information) sends a signal of information reflecting the company's condition beneficial for the investor. Brigham & Houston (2021) said that signaling theory illustrates that signals or signs in an action of the company's management show the investor how the management considers the company's future. Further, Moyer et al. (2014) explained that signal effectively separates strong companies from weak ones. The signal becomes priceless for a weak company to imitate the action of the strong one. Basically, signaling theory is closely related to information availability. In this case, the investor can use financial analysis in deciding since it is the most important part of the company's fundamental analysis. Generally, rating on go-public companies is based on the financial ratio analysis. This analysis is conducted to simplify the interpretation of the finance report.

Trade-off Theory

Trade-off theory is acknowledged as the optimal capital structure theory (Šarlija & Harc, 2012). In theory, a company tries to raise the debt to a particular level, where it is exchanged into a tax shield. In other words, trade-off theory raises debt by exchanging tax shields and bankruptcy potential (Haron, 2016). Companies with no capital structure pay higher tax, and it will influence their values (Brigham & Ehrhardt, 2013). However, by developing trade-off theory, a company exchanges the benefit for higher interest and financial distress. The trade-off theory says that firm value leverage equals firm added value, including tax and financial distress.

Hypotheses Development

The influence of profitability on capital structure

Profitability is the finance matrix used by analysts and investors to measure and evaluate the ability of a company to earning a relative profit on income, asset balance, operational cost, and equity of shareholders in a particular period (Susilowati et al., 2019; Susilowati & Turyanto, 2011). According to trade-off theory, it is said that optimum capital structure is achieved when there is a balance between the benefit and sacrifice of taking a loan. The benefits of a loan are tax shield, the interest of the debt, financial distress, and agency cost.

Modigliani & Miller (1958) mentioned that taking a loan is more beneficial compared to using own capital to pay the operational cost. It is why a company earning high profit tends

to take and use a loan first. A company having bigger and stronger capital is easier to decide to take a loan as it is sure with its strong financial foundation. Big capital gives the company a bigger opportunity to earn a profit, and a bigger profit provides more opportunities to find an external fund source. The studies of Aveh & Awunyo-Vitor (2017) and Wulandari & Paramita (2018) have proven that profitability positively and significantly influenced capital structure. Thus,

H_1 Profitability positively and significantly influences capital structure.

The Influence of Sales Growth on Capital Structure

Sales growth is one of the indicators of a company's growth. According to Brigham & Houston (2021), a company's growth needs big funds from an external source. Fast-growing companies tend to take loans more easily than slower ones (Weston & Brigham, 1990). A company with fast sales growth also tends to use higher external funds than slower sales growth (Wahyuningsih, 2010). It is suitable with the trade-off theory proposing that by raising debt in reaching optimum capital structure, the company can trade-off between tax shield and financial distress of the raising debt. Hamidah et al. (2016) and Zare & Zare (2013) have verified that sales growth positively and significantly influenced capital structure. Hence,

H_2 Sales growth positively and significantly influences capital structure.

The Influence of Profitability on Stock Prices

One profitability ratio proxied with return on equity (ROE) is issued to measure the return on investment of stockholders (Khajar et al., 2019). According to Sudana & Arlindania (2011), ROE shows the company's ability to earn a profit after tax by using its capital. Based on the signaling theory, management's action indicates investors on how to see the business's prospects (Haron, 2016).

High ROE value indicates that the company can earn a big profit, resulting in good performance and investor's interest. Good condition of the company raises demand on stock and increase of stock price. Conversely, low ROE value exhibits a bad performance, decreasing investor interest, and stock price. Aveh & Awunyo-Vitor (2017) and Al Umar et al. (2020) have confirmed that profitability positively and significantly influenced the stock price. Therefore,

H3 Profitability positively and significantly influences stock price.

The Influence of Sales Growth on Stock Price

Basically, sales growth reflects company productivity and hope of both internal (company) and external (investor and creditor). Sales growth is the difference between sales of the current period and the previous period. In this case, signaling theory explains why a company intends to provide information in the form of finance report for an investor and external, such as emission guarantor, creditor, and other information users. Signaling theory refers to an investor's decision on selecting and buying a company's stock (Levy & Lazarovich-Porat, 1995). Investor needs information related to a company to see the company's condition before buying the stock. The rapid growth of the company signs good performance. Hanif (2017) has evidenced that sales growth positively influenced the stock price. Thus,

H_4 Sales growth positively and significantly influences stock price.

The Influence of Capital Structure on Stock Price

Capital structure policy involves an exchange between risk and return. It means that taking more debt increases the risk of the investor. However, more debt usually results in greater expectations of a higher level of equity return (Brigham & Houston, 2021). A company that can use its debt more efficiently has a greater capability of making better growth. Besides, there is another consideration of investors in making a judgment on capital structure. Some investors assume that a growing company needs debt as an additional source of funding regarding the capital structure. The company needs more operational costs, which cannot be fulfilled with its capital only. This condition drives the company's future growth, stimulating increased stock prices. Menon (2016) and Yang et al. (2010) proved that capital structure positively and significantly influenced the stock price. Therefore,

H_5 Capital structure positively and significantly influences the stock price.

H_6 Capital structure mediates the influence of profitability on the stock price.

H_7 Capital structure mediates the influence of sales growth on the stock price.

RESEARCH METHODS

In this research, the secondary data used was an annual report published in the Indonesia Stock Exchange (IDX) in 2015-2019 gained from the official website of IDX (www.idx.co.id). Non-profitability sampling and purposive sampling were employed to sample using some particular considerations (Sanusi, 2013). The criteria included (Table 1):

a. The companies were listed in LQ45 in the period 2015-2019, respectively.
b. The companies listed in LQ45 provided an annual report and financial statement in the observation period of 2015-2019.

Table 1
OPERATIONAL DEFINITION AND MEASUREMENT

Variable	Definition	Measurement	Scale
Profitability	Comparison between net profit and total equity	ROE : $\frac{\text{NettProfit}}{\text{Total Equity}}$	Ratio
Sales Growth	Difference between Sales in the particular year minus sales in the previous year divided into sales in the previous year	Sales Growth :	Ratio
Capital Structure	Comparison between total debt and total equity	DER: $\frac{\text{Total Debt}}{\text{Total Equity}}$	Ratio
Stock Price	Stock price at the end of the year of a company listed in the LQ45 index	Closing Price	Nominal

Source: Brigham & Ehrhardt (2013)

The equation used is as follows:

Structure Capital (Y_1) = □ + □□ Profitability (X_1) + b_2 Sales Growth + e
Stock Price (Y_2) =□□+b_3 Structure Capital (Y_1) +b_4 Profitability (X_1) +b_5 Sales Growth + e

Moreover, the data analysis technique used in this research consisted of descriptive analysis, normality test, classic assumption test (multicollinearity test, heteroscedasticity test, autocorrelation test), model test (F-test and r^2), hypothesis test, and Sobel test.

RESULTS AND DISCUSSION

The object of this research was 82 companies listed in the LQ45 index suitable with the criteria. The descriptive statistic in this study included minimum, maximum, mean, and deviation Standard values. The descriptive statistic results revealed that (1) profitability (ROE) in the observation period 2015-2019 showed a minimum value of -0.01, gained by PT. Vale Indonesia Tbk in 2017 and maximum value of 1.37, gained by PT. Unilever Indonesia Tbk in 2017. The mean value was 0.2067, with a deviation standard of 0.24579. (2) Sales growth in the observation period 2015-2019 displayed a minimum value of -0.48, obtained by PT. Media Nusantara Citra Tbk in 2015 and maximum value of 1.56, obtained by PT PP(Persero) Tbk in 2015. Besides, the mean was 0.1049, with a deviation standard of 0.54405. (3) Capital structure (DER) in observation period 2015-2019 exhibited a minimum value of 0.15, acquired by PT Vale Indonesia Tbk in 2019, and maximum value of 2.73, acquired by PT PP (Persero) Tbk in 2015. The mean value was 0.7722, with a deviation standard of 0.54405. (4) Stock price in observation period 2015-2019 showed a minimum value of 450, achieved by PT Aneka Tambang (Persero) Tbk in 2019, and maximum value of 49525, achieved by PT Unilever Indonesia Tbk in 2017. The mean value was 5399.56, with a deviation standard of 8387.634.

In addition, the normality test indicated that the overall data results had a normal distribution. After that, the classic assumption test was conducted and showed that multicollinearity, autocorrelation, and heteroscedasticity did not happen. Then, in the model test, F-test was performed to see whether there was a significant influence between all independent and dependent variables. The model test results revealed that based on the F-test, the significance value of model 1 was 0.00 < 0.05. The profitability and sales growth simultaneously influenced capital structure. It means that the model fulfilled the goodness of fit. Besides, the test result on model 2 showed that the significance value was 0.00<0.05. It can be concluded that profitability, sales growth, and capital structure simultaneously influenced the stock price. Therefore, this model fulfilled the goodness of fit.

Moreover, based on the determination coefficient test result on model 1, the Adjusted R square value was 0.380. It means that the percentage of capital structure variation (DER) could be explained by the variation of both independent variables, ROE and sales growth, which was 38.0%, while other variables outside the research explained the rest (62.0%). Furthermore, the determination coefficient test result on model 2 revealed that the Adjusted R Square value was 0.793. It indicates that the percentage of stock price variation could be explained by the variation of three independent variables, such as ROE, sales growth, and capital structure at 79.3%, whereas the other variables outside this research explain the rest (20.7%).

Table 2
HYPOTHESIS TESTING

Hypothesis	Coefficient	Sig	Results
H1: Profitability positively and significantly influences capital structure	1.11	0.000	Accepted
H2: Sales growth positively and significantly influences capital structure	0.72	0.000	Accepted
H3: Profitability positively and significantly influences stock price	22708.13	0.000	Accepted
H4: Sales growth positively and significantly influences stock price	-6215.09	0.001	Accepted
H5: Capital structure positively and significantly influences stock price	5672.17	0.000	Accepted
H6: Capital structure mediates the influence of profitability on stock price	4859.55	0.0007	Accepted
H7: Capital structure mediates the influence of sales growth on stock price	9144.48	0.0007	Accepted

Based on Table 2, the multiple regression analysis test result showed that profitability and sales growth positively and significantly influenced capital structure. Also, profitability and capital structure positively and significantly influenced the stock price. Meanwhile, sales growth negatively and significantly influenced the stock price. In addition, the Sobel test

results uncovered that capital structure mediated the influence of profitability (ROE) and sales growth on the stock price.

Furthermore, profitability positively and significantly influenced capital structure. It demonstrates that the higher profitability, the higher the capital structure. On the opposite, lower profitability makes lower capital structure. It also means that the higher profitability of a company simulates the creditor to give a loan to the company since the creditor believes that the company can manage the resources optimally to gain high profit. This condition attracts investors to buy and keep their stock in the company. This finding supports the trade-off theory that a company maximizes debt optimally to gain maximum profit. It is expected that funding decisions can be optimized to keep the profit high. This result also reinforces the research results of (Aveh & Awunyo-Vitor, 2017) and Wulandari & Paramita (2018), stating that profitability positively and significantly influenced capital structure.

On the other hand, sales growth positively and significantly influenced capital structure. It means that higher sales growth drives a higher capital structure. On the opposite, lower sales growth drives lower capital structure. This finding corroborates the trade-off theory that a company having high sales growth gets a higher demand. This condition needs more sources of funds. To cover its operational cost, a company usually chooses an external source as an additional fund. Sales growth is directly proportional to the capital needed to achieve the goal. This finding also aligns with the research result of Hamidah et al. (2016) and Zare & Zare (2013) that sales growth positively and significantly affected capital structure.

Then, profitability positively and significantly influenced the stock price. It signifies that higher profitability drives higher stock prices. In contrast, lower profitability drives lower stock prices. According to signaling theory, company management provides indicators for investors about how the management knows the business prospect. An investor considers a company having high profitability as the one able to manage its resources to gain high profit. This result supports the research result carried out by Aveh & Awunyo-Vitor (2017) and Al Umar et al. (2020) that profitability positively and significantly impacted stock price.

In addition, Sales growth negatively and significantly influenced the stock price. It denotes that higher sales growth stimulates lower stock prices. Otherwise, lower sales growth stimulates higher stock prices. However, sales growth is not the primary consideration of investors in deciding on investment since sales growth does not guarantee high return and investment safety. This result verifies Deitiana (2015) finding that sales growth negatively and significantly influenced the stock price.

However, capital structure positively and significantly influenced the stock price. It implies that a higher capital structure drives higher stock prices. Conversely, a lower capital structure drives lower stock prices. This finding agrees with the trade-off theory that a company increases debt on a particular level to maximize profit. A company that can use its debt efficiently has a good ability to grow well. The investor considers capital structure an additional source of funds to cover all expenses since the company needs many operational costs. This stage will make the company's success in the future, resulting in increased stock price. This result confirms Yang et al. (2010) that capital structure positively and significantly impacted stock price.

Other than that, capital structure mediated the influences of profitability on the stock price. It suggests that a company's decision to raise capital structure increases profitability, and consequently, stock price becomes higher. Thus, a company can raise stock price by increasing profit resulted from its capital as at the same moment, it drives higher external source of fund and stock, considering the condition of capital structure on the deed. This result strengthens Al Umar et al. (2020) and Wulandari & Paramita (2018) that capital structure (DER) could mediate the influence of profitability (ROE) on the stock price.

Finally, capital structure mediated the influence of sales stock on the stock price. It means that the higher the capital structure, the higher the sales growth, and the higher the stock price. Nevertheless, Sales growth is not the variable influencing stock price directly but through the capital structure that mediates the influence of sales growth on the stock price. It indicates that high sales growth requires high capital (Mahapsari & Taman, 2013). This result supports Hanif (2017) that capital structure could mediate sales growth on the stock price.

CONCLUSION

This research's result is consistent with the trade-off theory that increases in profitability result in increased capital structure and increased sales growth, resulting in increased capital structure. It proves that profitability and sales growth run in the same direction toward the capital structure. In addition, this research's result also confirms its consistency to positive signaling theory. In this case, profitability and capital structure positively influenced the stock price.

As known, there have not been many authors researching capital structure as mediating variable. The result showed that capital structure mediated the influence of profitability and sales growth on the stock price.

The limitation of this study is only investigating the companies listed in LQ45 in the period 2015-2019 gained from the official website of IDX (www.idx.co.id). Thus, this study recommends for future research to (1) classifying companies having profitability and sales growth with big and small scale; (2) employing additional variables, such as inflation, interest rate, and business risk; (3) conducting on the next period considering the pandemic era because this research was conducted in the 2015-2019 period.

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