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Analysis of the Effect of Operating Leverage and Financial Leverage on Companies Profitability Listed on Indonesia Stock Exchange

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ABSTRACT

The purpose of this study was to explain the influence of the Degree of Operating Leverage (DOL) and Degree of Financial Leverage (DFL) on company profitability. The population in this study was consumer goods companies listed on the Indonesia Stock Exchange in 2017-2018, with 33 sample companies selected using purposive sampling. Method research was causality research, and the data used are quantitative. The company published a complete financial report from 2017 to 2018, would be accessed through the Indonesian Stock Exchange Website and related company websites. The data were analyzed using the SPSS 21 application. The result shows that individual testing of DOL with profitability and DFL with profitability and standard measurement of DOL and DFL with profitability found that DOL and DCL did not have a significant effect on the changes in company profitability (ROE and ROA).

Keywords: profitability, degree of operating leverage, liquidity, capital structure, current ratio, return on assets.

INTRODUCTION

Companies have the opportunity to develop faster. However, they but have their main limitations on using funding sources from debt. The use of debt funding sources has relatively fixed costs so that it is possible to optimize its usage so that the debt strategy remains a positive impact on profitability and shareholder acceptance. According to Sjahrial (2009, p. 147), leverage is the use of assets and sources of funds by companies that have fixed costs, which means the source of funding derived from loans that have an interest as a fixed expense to increase potential shareholder profits. Meanwhile, Riyanto (2001, p. 209) states that the fulfillment of funds comes from two sources, namely internal sources and external sources.

However, the use of is too high debt that will add to the company forced the company to be categorized as extreme leverage, meaning that the company is trapped in a high level of debt and is challenging to release the debt burden. Therefore the company should balance how much debt is worth taking and on which sources using to pay debts.

Profitability is the company's ability to generate profits. Profitability analysis describes the company's first performance in obtaining benefits (Harmono, 2009, p. 108). According to Cyrillius (2002), financial leverage has a negative influence on profitability in manufacturing companies that have gone public in Indonesia.

The research by Yuvita Puspitasari (2013), DOL, has a significant effect on changes in company profitability (ROE, ROI, ROA, and EPS), while for DFL it was found that DFL results not significantly influence changes in company profitability in food and beverage industry companies in 2007-2011. In contrast, the research by Leonita Putri (2017), DOL, and DCL have a significant influence on changes in company profitability (ROE, ROA, and EPS), while for DFL do not significantly influence changes in profitability of banking companies listed on the Indonesia Stock Exchange in 2011-2016.

According to Sartono (2010, p. 122), Profitability is a ratio that measures a company's ability to generate profits, both concerning sales, assets, and earnings for its capital. Thus, long-term investors will be very interested in this profitability analysis. For example, shareholders will see profits that will receive in the form of dividends. Kasmir (2015, p. 114) said that Profitability Ratios are ratios to assess the ability of companies to look for profits or profits in a certain period. This ratio also provides a measure of the effectiveness of a company's management, which shown from profits generated from sales or investment income. Profitability ratios used to determine the ability of companies to get benefits. Through this ratio, investors can find out the rate of return on their investment. Profitability ratios used in this study were Return on Assets (ROA) and Return on Equity (ROE). Return on equity (ROE) is a ratio to measure net profit after tax with their capital (Kasmir, 2015, p. 204). This ratio shows the power to generate a return on investment based on the book value of the shareholders. The higher this ratio, the better, meaning that the position of the owner of the company is getting stronger.

Return on Assets (ROA) is one of the profitability ratios. In the analysis of financial statements, this ratio highlighted because it can show the company's success in making profits. ROA can measure the company's ability to generate earnings in the past and then projected it in the future. Assets in question are the entire assets of the company, obtained from the capital or foreign capital has converted by the company into company assets that used for the survival of the company. According to Brigham and Houston (2011, p. 90), "Ratio net income to total assets measure the return on total assets (ROA) after interest and taxes. "

Definition Leverage is the use of assets and sources of funds owned by companies where the use of assets or funds in the company must incur fixed costs. In another sense, leverage, namely the use of assets or funds secured on the use of assets or company funds, must cover fixed costs or pay a fixed fee. The operating leverage use of assets with fixed costs in the hope that the revenue generated of assets will be sufficient to cover fixed costs and variable costs, the "financial leverage" use of funds with fixed costs in the hope of enlarging income per standard stock width (EPS = Earning Per Share). According to Gitosudarmo (2001) that there are two types of leverage, namely: Operating leverage and Financial leverage namely;

Operating leverage is the use of assets with fixed costs that aim to generate enough revenue to cover fixed and variable costs and can increase profitability. Operating leverage can measure changes in revenue or sales against the company's operating profit. By knowing the level of operating leverage, management can estimate changes in operating profit as a result of changes in sales. Therefore, a working advantage is related to the company's sales and earnings before interest and taxes. The effect of changes in sales volume on changes in EBIT, the degree of operating leverage (DOL) can be used.

The company's policy to explained loan capital from outside in terms of a financial management application of financial leverage policy, where the company finances its operations using loan capital and bears a fixed burden aimed at increasing earnings per sheet stock. Financial Leverage arises because of fixed financial obligations that must be issued by the company. These fixed financial obligations do not change with changes in the level of EBIT and must pay regardless of the level of EBIT achieved by the company. The conceptual framework of this study is as follows:

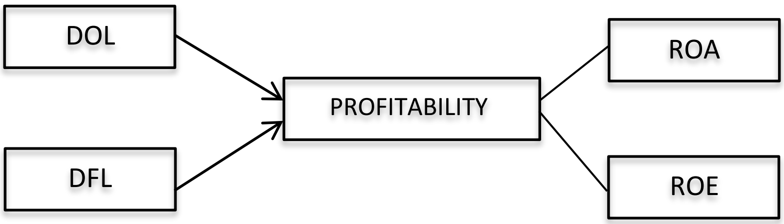

Figure 1. Research Conceptual Framework

Based on the various results of previous studies and the frame of thought developed, the following hypotheses formulated in this study:

H1 = There is a significant positive effect of DOL on Profitability
H2 = There is a significant positive effect of DFL on Profitability
H3 = There is a significant simultaneous effect of DOL, DFL on Profitability

METHOD

The type of data in this study uses secondary data; namely, secondary data is a source of research data obtained indirectly by researchers through intermediary media (collected and recorded by other parties). Secondary information is generally in the form of evidence, historical records, or reports that have compiled in archives (documentary data), which are published and which are not published. Data obtained by collecting documents and other sources in the form of monthly financial statement information on consumer goods companies listed on the Indonesia Stock Exchange in 2018.

This study uses a sample of financial data from 19 consumption industry companies listed on the Indonesia Stock Exchange in the 2017-2018 period. Financial data obtained, then calculated the value of DOL, DFL, ROA, and ROE of each company. In taking samples, researchers use random sampling or non-probability sampling, i.e., not all samples have the same opportunity to choose. The list of companies used in this study can be seen in Table 1 below:

Table 1. Data on Industrial Companies Consumption Period 2018

No	Kode	Nama Perusahaan
1	CAMP	PT. Campina Ice Cream Industry Tbk
2	CEKA	PT. Wilmar Cahaya Indonesia Tbk
3	CINT	PT. Chitose Internasional Tbk
4	CLEO	PT. Sariguna Primatirta Tbk
5	DLTA	Delta Djakarta Tbk
6	DVLA	Darya Varia Laboratoria Tbk
7	GGRM	Gudang Garam Tbk
8	HMSP	HM Sampoerna Tbk
9	HOKI	PT. Buyung Poetra Sembada Tbk
10	ICBP	Indofood CBP Sukses Makmur Tbk
11	KAEF	Kimia Farma (Persero) Tbk
12	KINO	PT. Kino Indonesia Tbk
13	KLBF	Kalbe Farma Tbk
14	MERK	Merck Tbk
15	PYFA	Pyridam Farma Tbk

16	SIDO	PT Industri Jamu Dan Farmasi Sido Muncul Tbk
17	TCID	Mandom Indonesia Tbk
18	UNVR	PT. Unilever Indonesia Tbk
19	WOOD	PT. Integra Indocabinet Tbk

Source: IDX 2018

This study uses four variables, namely two independent variables (variable X), namely DOL and DFL, and two dependent variables (variable Y), namely ROA and ROE. This research model described as the following equation:

Y = α + β_1 X_1 + β_2 X_2 + e

Data Analysis Instruments and Techniques

Operating Leverage Analysis (X1)

To measure the effect of changes in sales volume on changes in EBIT. Mathematically, Warsono (2003, p. 215) DOL formulated as follows:

DOL = (Percentage change in EBIT) / (Percentage change in sales)

Financial Leverage Analysis (X2)

Financial leverage analysis is an analysis to compare EBIT with Earning Per share. According to Warsono (2003, p. 218), DFL formulated as follows:

DFL = (Percentage change in EPS) / (Percentage change in EBIT)

Profitability (Y)

Profitability is the company's ability to generate profits. Profitability in this study was measured using ROE (Return on Equity) and ROA (Return on Assets).

ROE = (Net profit after tax) / (Total Equity) x100% ROA = (Net profit after tax) / (Total Assets) x100%

Multiple linear regression analysis is an analysis to see the effect of financial leverage and operating leverage on corporate profitability. The general equation for simple linear regression referred to is as follows:

Y_1 = α + β_1 X_1 + β_2 X_2 + e

Y_2 = α + β_1 X_1 + β_2 X_2 + e

Where:

Y = ROE, ROA dependent variable

X_1 = independent variable (financial leverage)

X_2 = independent variable (operating leverage)

a = constant

b1 ... b2 = regression coefficient of the independent variable 1 to 2

RESULT AND DISCUSSION

A constant of -39,965 from ROA states that if the independent variable is considered consistent, the average return on total assets (ROA) is -39,965. The DOL regression coefficient of -0.577 indicates that DOL a negative effect on ROA, meaning that every additional sales volume to 1 Rupiah operating profit will reduce Return on Assets (ROA) by 0.577%. DFL regression coefficient of 60.273 states that DFL has a positive effect on ROA, meaning that any further use of debt to finance a company or DFL of 1 Rupiah will increase Return on Assets (ROA) by 60, 273%. A constant of -101,472 from ROE states that if the independent variable is considered consistent, then the profit that belongs to the owner of his capital (ROE) is -101,472.

The DOL regression coefficient of -1.206 states that DOL a negative effect on ROE, meaning that any additional sales volume to 1 Rupiah operating profit will reduce Return on Equity (ROE) by 1.206%. The DFL regression coefficient of 139.553 states that DFL has a positive effect on ROE, meaning any further use of debt to finance a company or DFL of 1 Rupiah will increase Return on Equity (ROE) by 139.553%.

The results of this study indicated that DOL did not have a significant effect on changes in ROA and ROE. DOL shows efficiency in creating net profit, the increase of which should have a direct impact on increasing profitability, in this case, ROA and ROE. However, this did not happen to the company that was the object of this study for the period 2017 - 2018—explained that there might be changes in the company's asset items that do not contribute directly to the acquisition of sales. Another possibility is that an increase in DOL is not an increase in net profit in a more significant portion than an increase in Sales. However, it could be that the increase in net income is not so meaningful, while changes in sales levels stagnate or even decline.

The results of this study were not the same as the research conducted by Qasim Saleem and Muhammad Akram Naseem (2012) on oil and gas companies in Pakistan, which resulted that DOL had a significant influence on changes in the value of ROE, ROA, and EPS. The results of this study are also not the same as research conducted by Lisa Fitriyanti Akbar (2013), DOL has a significant effect on changes in company profitability (ROE, ROI, ROA, and EPS) in food industry companies listed on the Indonesia Stock Exchange.

DFL values obtained from this study did not have a significant effect on changes in ROA and ROE. The DFL formula looks at the contribution of sources of funds outside of paid-up capital, in this case, debt. If there is an increase in DFL while the amount of paid-in money is constant, it means there is a contribution of funds outside of the capital in generating net profit. This condition should increase profitability, especially ROE. However, this logic does not occur in the companies examined in this study in 2017 - 2018. What can be explained from this finding is that several possibilities arise, including changes in very dynamic changes in the number of shares outstanding or paid-in capital. Besides, changes in external funding sources directly affect changes in assets. The effectiveness of external funding sources in supporting earnings is also very dynamic in line with the cost of funds, which also varies greatly.

The results of this study are the same as those conducted by Qasim Saleem and Muhammad Akram Naseem (2012) on oil and gas companies in Pakistan. The same results were also obtained from the research of Eunjo Yoon and SooCheong Jang (2005) when examining the effect of financial leverage on changes in profitability. The study conducted by Yuvita Puspitasari (2013) also strengthens the results of research, which state that DFL does not have a significant effect on changes in ROE, ROI, ROA, and EPS.

CONCLUSIONS

This study aims to examine whether there is an influence of the use of operating leverage and financial leverage on the profitability of companies engaged in the industry. DOL and DFL do not influence ROA in the study of consumer goods companies in Indonesia for 2017-2018. Possibly because other conditions cause unrelated correlations or the effect of DOL or DFL on ROA. DOL and DFL do not influence ROE in the research of consumer goods companies in

Indonesia in the 2017-2018 period. The causal relationship between DOL and DFL on ROA also happens to ROE, as stated in the above discussion.

For further research, not only consumer goods companies but in other types of companies, such as BUMN, Manufacturing, and different kinds of sectors by comparing companies to research objects, are expected to provide an overview of the relationship ROA and ROE, DOL and DFL, whether ROA and ROE have results the same or different in the relationship between DOL and DFL, and using a theoretical reference in future research.

The period for research will be even longer, namely more than one year, so that the sample included in the study will be more numerous and will better describe the performance of consumer goods companies in Indonesia.

Further research is necessary to identify the factors that make the correlation or the effect of DOL and DFL on profitability not significantly correlative. For variables that not easily controlled, it recommended testing its role as a moderator variable.

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