International Journal of Application on Economics and Business (IJAEB)
Volume 1, Issue 1, 2023. ISSN: 2987-1972

The Effect of Efficiency, Effectiveness, and Financial Leverage on The Performance of Public Companies in Automotive Sub-Sector

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Submitted: July 2022, Revised: December 2022, Accepted: February 2023

ABSTRACT
The goal of the company is to maximize the value of the owner's wealth. The success of the company will be seen through the financial performance. The financial performance is measured through Return on Equity (ROE). According to Du Pont's theory, the company's ROE is influenced by efficiency, effectiveness and financial leverage. The purpose of this study is to determine the effect of efficiency, effectiveness and financial leverage to the performance of public companies. The population in this study are all public companies in the automotive sub-sector between the year of 2016 until 2020 with the sample of 10 automotive companies. This study uses multiple linear regression analysis with the help of EViews 10 software. The results of this study indicate that (1) operational efficiency has a negative and significant effect on company performance, (2) the effectiveness of asset use has a positive and significant effect on company performance, (3) financial leverage has a negative but not significant effect on company performance.

Keywords: *Efficiency, Effectiveness, Financial Leverage, Company Performance*

1. INTRODUCTION

Maximizing the shareholder's wealth is the ultimate goal of a company. The company's success in achieving its ultimate goal is implied by none other than the company's financial performance [1]. One of the many indicators that reflects the company's financial performance is return on equity (ROE). ROE is how much profit the company is able to generate from the invested capital in percentage.

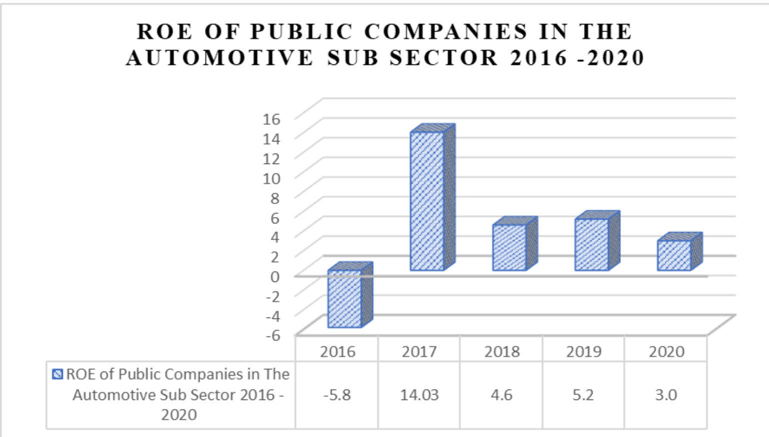

Figure 1 Bar Graph of Return on Equity (ROE) of Public Companies in the Automotive Sub-Sector Period 2016-2020 (in percentage).

The objects in this study are public companies in the automotive sub-sector for the 2016-2020 period. Based on Figure 1.1, the average value of the company's ROE for 5 years tends to decrease. This is certainly contrary to what is expected by the company, which is to increase. Theoretically (Du Pont) the company's ROE is influenced by efficiency, effectiveness, and financial leverage. This is what underlies the researcher to conduct a study entitled "The Effect of Efficiency, Effectiveness, and Financial Leverage on the Financial Performance of Public Companies in the Automotive Sub-Sector". Through this research, researchers can find out how the influence of each of these variables on ROE.

1.1. Financial Performance

Financial performance is an analysis that can measure and see the extent to which the company can carry out its company activities in achieving its ultimate goal, which is maximizing the shareholder's wealth. The company's success in achieving its goals will eventually be reflected through its financial performance [1]. The company's financial performance is measured using ROE. The ROE shows how much profit the company is able to generate upon the invested capital in the form of a percentage. In this study, researchers looked at the financial statements to see the amount of equity value owned by the company. Financial statements are tools used by company managers to communicate to their investors or potential investors. Good financial performance will provide a positive signal for investors to invest [2].

1.2. Dupont Analysis

Du Pont Analysis was introduced and used since 1914 by the Du Pont Corporation. Du Pont Corporation is a company from the United States engaged in paint [3]. Du Pont Analysis is a theory that can see the overall performance of a company [4].

In this Du Pont Analysis, there are several factors that can affect the Return on Equity (ROE) value. With the ROE, it can be seen the ability of a company to return the capital that has been issued by investors. Researchers use financial statements in their research.

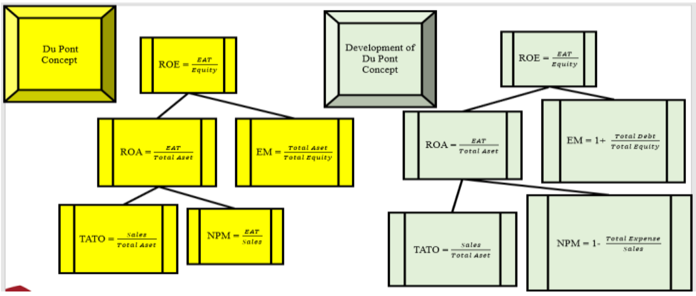

Figure 2 Development of Du Pont's Theory Concepts

In financial statements, the value of the company's owner's wealth is measured by their equity value. The equity value is influenced by the amount of profit owned by the company. A profitability ratio – as its name suggests – is a ratio that is used to assess a company's ability to generate profits [5]. Du Pont's theory includes all activity ratios and profit margins on sales obtained by the company, in which these activities will affect the profitability value of a company.

In Du Pont's theory, the ROE of a company is influenced by efficiency, effectiveness, and financial leverage. Operational efficiency is projected by Net Profit Margin, effectiveness of asset use is projected by Total Asset Turn Over, and company's financial leverage is projected by Debt-to-Equity Ratio which is described by Equity Multiplier (EM) [3].

A relationship is present between Return on Assets (ROA) and ROE in Du Pont's theory [6]. The income statement and balance sheet researchers use in their research.

Two measures of profitability in Du Pont's theory are ROA or Return on Investment (ROI) and ROE. ROA indicates how much profit a company is able to generate by utilizing its assets.

Meanwhile, ROE is the company's ability to return the level of wealth to the owner of the company, i.e., the company's shareholder (equity).

The company's book value is the result of a combination or combination of efficiency, effectiveness, and financial leverage [7]. When a company is able to operate efficiently and effectively with the right combination of leverage, the company can increase the owner's wealth because it can generate maximum company profits.

ROE ratio is the right ratio to assess the company. This is because through the ROE ratio it can be seen how the company achieves the maximum profit value. Companies must be able to operate efficiently and effectively combined with the use of appropriate leverage. The more efficient the company in financing the company's operational activities, the higher the level of profit/return obtained. In addition, the more effective a company is in utilizing its assets, the greater the value of their ROA which will ultimately affect the ROE value.

In Du Pont's theory, financial leverage may decrease or increase a company's financial performance. This is because if the ROA can be above the interest rate that must be paid by the company, then financial leverage is considered capable of increasing the company's ROE.

But if the interest rate exceeds ROA, then financial leverage will actually reduce the company's ROE. Thus, financial leverage holds a critical role in determining the value of a company's ROE, mainly when involving financial leverage which has a significant and negative effect on ROE [8].

In its development, every company must have a desire to develop and raise its company name through increasing company performance which will affect the value of the company. However, such process drives the company to require capital in order to carry out the operational and investment activities. The financial activities carried out by the company in obtaining sources of funds can come from internal capital funds (retained earnings) or externally (debt and shares) [9].

In general, companies would prefer to use internal funding sources, namely the company's operational results derived from their retained earnings. This is due to limited information on the condition of the company from external parties and this makes the company not have a definite assessment of the company.

1.3. Pecking Order Theory

In the pecking order theory, when a company experiences a shortage of internal funding sources to finance investment and operational activities, the company will use external or external sources of funds such as loans/financing through debt originating from creditors compared to equity financing obtained through the issuance of new shares. . This is logical because the company will definitely try to find a source of funds with the smallest cost and risk to fund the company's activities. Issuance of new shares has a higher level of risk when compared to debt financing [10].

Funding through debt carries a lower risk than funding through shares. Funding through debt will reduce the company's ability to pay taxes. This is because the company has interest. In addition, the cost of issuing new shares will be higher than issuing debt securities. By issuing new shares will also make people think that the company is not able to meet their needs [9].

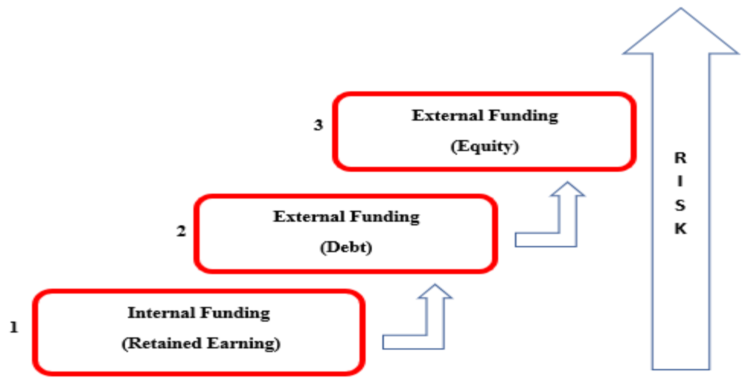

Figure 3 Pecking Order Theory
Source: http://niconotes.blogspot.com/2018/01/theory-pecking-order.html

The use of debt will reduce financial conditions which can lead to the bankruptcy of the company if the interest expense in financing the debt increases. Interest expense is an obligation for the company, which must be paid annually. When the company's cash flow decreases, the company will find it difficult to make payments. This will reduce the company's net profit. Furthermore, external financing by issuing new shares (equity), will indirectly increase the number of shareholders and there is a possibility of a decrease in the amount of income received from each share which will affect the value of the company.

1.4. Return On Equity

Return On Equity or ROE is a popular measuring tool that is able to assess the financial performance of a company. This is because the main goal of the company is to bring more value and wealth to its shareholders. Basically, the value of the company is divided into two types, namely market value and book value. In this study, the researcher used book value. Therefore, the value of the total equity owned by the company will reflect how much wealth the owner of the company is.

$$ROE = \frac{Earning\ After\ Tax\ (EAT)}{Total\ Equity}$$

Maximizing the wealth of the owner of the company in the form of a percentage is the result of ROE. The EAT or Earning After Tax is an increase in wealth for the owner of the company in the form of net profit after tax in rupiah. While equity is the amount of capital invested by the owner. Thus, the result of the amount of profit in the form of a percentage of invested capital is ROE.

1.5. Company Operational Efficiency

If efficiency is a measure of cost, operational efficiency is the measure of a company's ability in carrying out sales activities on its resources optimally but still by minimizing costs [11]. Operational efficiency in this study is projected at expense to sales. The more efficient the company in carrying out its operational activities, the higher the profit value generated by the company [12]. The percentage of profit generated by the operations funded through shareholder’s equity is represented as ROE. [3] states that operational efficiency negatively impacts the ROE.

$$Expense\ to\ Sales = \frac{Total\ Expense}{Sales}$$

1.6. Effective Use of Company Assets

Effective use of assets is a company's ability to use its assets correctly and well so as to maximize sales value [5]. The higher the effectiveness, the higher the company’s ROE. This is because the costs incurred by the company will be less because the company has a good ability in utilizing its fixed assets [3]. Every asset owned by the company must be accompanied by a high level of productivity as well because this can affect the company's income level. When a company has high-value assets and yet the company is not able to operate optimally, it is very likely that the company’s sales value will decrease. A low level of asset productivity indicates that the company is not effective in using its assets. The effectiveness of the use of these assets is measured using the Total Assets Turn Over (TATO) ratio.

$$Total\ Asset\ Turn\ Over = \frac{Sales}{Total\ Asset}$$

1.7. Financial Leverage

Financial leverage measures how much of a company’s assets are financed using debt [14]. In this study, financial leverage is projected through the Debt-to-Equity Ratio (DER). The bigger the company uses debt, the greater the risk that will be faced by the company because there is an obligation for the company to pay debt service fees in the form of interest. Financial Leverage has an influence on the company's performance, either positively or negatively. If the debt value is less than the company's profit then this will increase the ROE value. Funding through debt is preferred by the company because it is through debt (there is an amount of money paid up front) and this will make the company's operating activities turn around faster so that the level of profit or profit generated by the company will also increase. This is different from the issuance of shares because the funds received through shares are obtained in stages. The financial leverage is projected by the DER which is a ratio that compares the amount of debt relative to its equity.

$$DER = \frac{Total\ Debt}{Total\ Equity}$$

2. BACKGROUND

Multiple linear analysis is chosen as the technique suitable for this research. The research object is return on equity, operational efficiency, effectiveness of asset use, and financial leverage. The population of this research are all of the public companies in the automotive sub-sector for the year 2016-2020 period. The method in this study is a census, so that in this study there was no sampling.

This study uses panel data which is a combination of both cross section and time series data. The nature of the data collected in this study is a secondary data obtained from the Indonesia's Stock Exchange (IDX) official website and also the official websites of the selected companies. This study uses several tests, namely the Descriptive Statistical Test, Multicollinearity Test, Chow Test, Hausman Test, Lagrange Multiplier Test, t-Test, F-Test, and the Determinant Coefficient Test (R^2)

2.1. Data Analysis Result Descriptive Statistics

Descriptive statistical analysis was used to describe the data for each of the variables. This descriptive statistical test is carried out by collecting, processing, and presenting the maximum, minimum, means, median, and standard deviations values [15]. After performing descriptive statistical analysis, the next step the researcher took was to perform the Chow test with a probability value of 0.0000, which means that the next researcher needs to do the Hausman test and the result is 0.0036. Thus, the appropriate model for this study is none other than the fixed effect model.

Table 1 Descriptive Statistical Results

	Y ROE	X1 EFFICIENCY	X2 EFFECTIVENESS	X3 FINANCIAL LEVERAGE
Mean	4.194800	98.40527	69.73399	124.2617
Median	2.670000	99.03198	69.27000	96.24407
Maximum	82.94000	127.8850	140.4166	826.1326
Minimum	-124.1200	33.54083	18.00725	7.127434
Std. Dev	24.07521	12.86864	34.16258	136.1071
Probability	0.000000	0.000000	0.257535	0.000000
Observations	50	50	50	50

2.2. Panel Data Regression Model Test

Testing the panel data regression model comes with three approaches, namely the fixed effects approach, the common effects approach and the random effects approach [16].
After testing, the FEM model used in the study. Here are the results:

ROE = 97,8445 – 1,0417 EO + 0,1384 EP – 0,0064 FL

Table 2 Panel Data Regression Model Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob
X1_EFFICIENCY	-1.041742	0.062090	-16.77789	0.0000
X2_EFFECTIVENESS	0.138446	0.061635	2.246215	0.0331
X3_FINANCIAL LEVERAGE	-0.006367	0.026802	-0.237570	0.8140
C	97.84447			
R-squared	0.984961			
Adjusted R – squared	0.972708			
F-Statistic	80.38054			
Prob(F-statistic)	0.000000			

3. DISCUSSIONS

After testing in Table 3, the operational efficiency variable has a significant and negative effect on the company performance. The results of this study is in accordance with a prior research conducted by [17]. The smaller the company spends its operational costs, the higher the profit received by the company. The profit referred to in this case is profit in the form of a percentage, namely ROE.

The variable of the effectiveness of the use of assets has a positive and significant effect on the company's performance. This result is in line with the research conducted by [18]. The more effective the company in managing its assets, the greater the income received by the company from its sales.

Financial Leverage variable has a negative but not significant effect on company performance. The results of this study contradict the existing theory, namely Du Pont’s Theory. The cause of insignificant financial leverage is because during the pandemic (2019-2020) there were differences in the pattern of corporate financial behavior where there were five companies that had a positive influence on ROE and five others had a negative influence on ROE. Financial Leverage can have a positive or negative influence on a company's ROE this is due to interest rates.

When the additional interest rate is greater than the profit received by the company, the company's ROE will be negative and vice versa. [5] mentioned in his research that financial leverage has a negative and significant effect on ROE.

Simultaneously, the three X variables have an effect on ROE, but when viewed partially, financial leverage doesn’t have any significant effect on ROE.

4. CONCLUSIONS

Based on the results obtain through data processing as well as in dept discussion in the previous chapter, the conclusions of the researcher on this research are:

1. Operational efficiency negatively and significantly impacts the performance of Public Companies in the Automotive Sub-Sector for the 2016 - 2020 period.
2. The effectiveness of the use of assets positvely and significantly impacts the performance of Public Companies in the Automotive Sub-Sector for the 2016 - 2020 period.
3. Financial Leverage negatively but insignificantly affects the performance of Public Companies in the Automotive Sub-Sector for the 2016 - 2020 period.
4. Overall Operational Efficiency, Effectiveness of Asset Use, and Financial Leverage have a significantly influence the performance of public companies in the automotive sub-sector for the 2016-2020 period because the significance of F is 0.0. Partially, however, is found that financial leverage doesn’t have a significant effect.

5. SUGGESTIONS

Based on the limitations that the authors have described previously, the authors have suggestions that can be useful for the company and further researchers, namely:
For companies:

1. To increase ROE, the authors have suggestions for companies to be able to minimize expenses for their operational expenses. This is because operational efficiency has a negative influence on ROE.
2. Increase the effectiveness of the use of its assets. The higher the effectivity in managing assets, the greater the income received by the company from its sales. High sales productivity is due to the good use of assets.
3. Increasing ROE, the company has a sales profit above the interest expense on the loan. This is so that the company's Earnings After Tax (EAT) increases. EAT increases then the company's ROE will be positive.

For further research:

1. Do more in-depth research. Such as making more detailed research on what operational expenses can affect the company's ROE. Operational expenses that are more dominant in influencing the company's ROE will be seen).
2. Do more in-depth research on financial leverage variables such as adding a dummy variable (pandemic). This is because financial leverage can provide two directions of influence, namely positive and negative on ROE.
3. Expanding the research population by adding other companies other than public companies in the automotive sub-sector. Such as conducting thorough research on public manufacturing companies in Indonesia.
4. Extend the research period so that the research conducted can be more accurate.

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