Proceeding 2nd Medan International Economics and Business

Volume 2, Issue 1, 2024
"Human Resource Transformation and Collaborative Innovation to Build Independent and Competitive Business in the Digital Era"

THE INFLUENCE OF INVESTMENT OPPORTUNITY SET, OPERATING PROFIT MARGIN, AND CASH FLOW FROM OPERATING ACTIVITIES ON RETURN ON ASSETS

Isna Ardila[1]*, Monalisa Fatmasari Lubis[2]
[1]Fakultas Ekonomi dan Bisnis, Universitas Muhammadiyah Sumatera Utara
Jl. Kapten Mukhtar Basri No. 3 Medan
[2]Universitas Nusa Bangsa Sumatera Utara
***Email:** isnaardila@umsu.ac.id

ABSTRACT
The aim of this study is to examine the partial and simultaneous effects of Investment Opportunity Set, Operating Profit Margin, and Cash Flow From Operating Activities on Return on Assets in metal companies listed on the Indonesia Stock Exchange. The research methodology employs multiple linear regression. The sample consists of 7 metal companies listed on the stock exchange during the period from 2016 to 2022. Hypothesis testing results indicate that partially, Investment Opportunity Set and Operating Profit Margin have a significant influence on Return on Assets. However, Cash Flow From Operating Activities does not affect Return on Assets. The research findings from the F-test indicate that collectively, Investment Opportunity Set, Operating Profit Margin, and Cash Flow From Operating Activities significantly influence Return on Assets.

INTRODUCTION

Companies that can fulfill all their obligations, both long-term and short-term, use their assets effectively to achieve profit from sales, and operate and develop their business sustainably (Thoyib et al., 2018). The success of a company in generating net profit from its assets can be assessed through the Return On Assets (ROA) ratio. ROA measures the efficiency of a company in using its assets to generate profits. The higher the ROA value, the better the company's performance in generating profit from its owned assets. There are many factors that can influence Return On Assets (ROA), including Investment Opportunity Set, Operating Profit Margin, and Cash Flow From Operating Activities (Anugrah, 2014). ROA (Return on Assets) is used to assess a company's ability to generate net profit relative to its asset base. An increase in ROA can attract investor interest in buying the company's shares, thereby potentially enhancing the company's returns. ROA is one of the profitability ratios that measures a company's ability to generate net profit from its asset utilization. Profitability ratios generally encompass a group of ratios that consider factors such as liquidity, asset management, and debt management against a company's operational results (Kasmir, 2016). ROA is influenced by two main factors: net profit margin and total asset turnover. A low ROA can be caused by a low net profit margin, which in turn may result from low total asset turnover (Kasmir, 2016). In other words, if a company has a low ROA,

it could be due to thin net profits resulting from less-than-optimal efficiency in utilizing total assets. Investment Opportunity Set (IOS) refers to the value of various investment opportunities available to a company in the future. It relates to the growth potential of a company, encompassing opportunities for future investments. The ability of a company to pursue these investments often depends on its cash availability. With sufficient cash reserves, a company can seize existing investment opportunities. Dividend payments, especially cash dividends, are significantly influenced by the company's cash availability. When a company has excess cash, it tends to have more opportunities for investment (Harmono, 2015). This underscores the importance of cash management in determining how well a company can capitalize on emerging investment opportunities. The Investment Opportunity Set (IOS) signifies the array of investment prospects accessible to a company to enhance profitability. Companies with numerous investment opportunities typically prefer to use their internal funds (such as generated profits) for financing rather than relying on external funding sources. Internal financing is considered advantageous due to its lower cost of capital compared to using new debt or equity. This aligns with theories advanced by (Jensen, 2011) emphasizing the strategic use of internal funds to efficiently exploit available investment opportunities and optimize returns for shareholders.

Operating Profit Margin (OPM), also known as operating income margin or operating margin, is a ratio that measures the percentage of a company's operating income (or operating profit) relative to its net sales or revenue. Operating income is derived after subtracting all operating expenses of the company from net sales, excluding interest and taxes. OPM provides insight into a company's efficiency in managing its operational costs relative to the revenue generated. The higher the OPM, the more efficient the company is in generating profit from its operational activities. A high Operating Profit Margin (OPM) indicates that a company has the capability to generate significant profit from its operational activities each year. A high OPM signifies that the company is efficient in managing its operational costs relative to the revenue generated. In other words, the company can maintain or increase its operating profit significantly. The importance of OPM lies in its role as a financial performance indicator that provides insights into the operational profitability of a company and its positive impact on changes in the company's profit (Daud, 2017). Free cash flow is the amount of cash available after deducting necessary capital expenditures required to operate and expand the business from the cash generated from operations. When free cash flow is available, managers face two challenges. Firstly, managers may allocate this free cash flow inefficiently or without considering optimal investment returns. Secondly, managers might use free cash flow for investments that do not yield adequate returns (Sunarto & Budi, 2010). This study focuses on metal companies listed on the Indonesia Stock Exchange (IDX). These companies operate across various sectors, including general trading, product representation or agency, contracting, manufacturing and industrial fabrication, processing of aluminum and other metals, printing, real estate, as well as steel and iron manufacturing. Data from metal companies listed on the Indonesia Stock Exchange in 2019 indicate several key findings: Profit decline in 2019 suggests that the expected profits by these companies did not meet expectations, Despite an increase in capital in 2019, it did not successfully boost profits, The increase in total assets in 2019 did not lead to an increase in profits, The increase in total assets in 2019 did not successfully increase sales, Decreases

in cash flow from operating activities in 2017 and 2019 caused difficulties for companies in paying loans and dividends. These findings illustrate that the discrepancy between desired and actual profits can disrupt the performance and sustainability of these businesses. Moreover, insufficient profitability may impact investor interest in these companies (Sawir, 2018). If these trends persist, they could affect the overall operations and business of the companies, potentially leading to future financial difficulties (Sawir, 2018).

METHOD

This research aims to explore how Investment Opportunity Set, Operating Profit Margin, and cash flow from operating activities, both individually and collectively, influence Return on Assets in metal companies listed on the Indonesia Stock Exchange during the period from 2016 to 2020. The population used in this study consists of 17 metal and related companies listed on the Indonesia Stock Exchange during the period from 2016 to 2020. This study employs purposive sampling technique for selecting the sample. Based on this method, the sample in this study consists of 7 companies out of the total 17 metal companies listed on the Indonesia Stock Exchange during that period. In this study, the technique used is multiple regression analysis. This study, the equation for multiple linear regression can be formulated as follows:

$$ROA=\beta 0+\beta 1\times IOS+\beta 2\times OPM+\beta 3\times CFOA+\epsilon$$

This equation assumes that the relationship between Return on Assets and Investment Opportunity Set, Operating Profit Margin, and Cash Flow from Operating Activities is linear in the regression parameters $\beta 1, \beta 2, \beta 3$. Multiple linear regression analysis is used to identify and measure the extent of influence of each independent variable on the dependent variable, ROA.

RESULT

In this study, the research variables are classified into two groups: independent variables (predictors) and dependent variables. The independent variables in this study are Investment Opportunity Set, Operating Profit Margin, and Cash Flow From Operating Activities. The dependent variable is Return On Assets (ROA).

Descriptive Statistics

The results of this analysis describe the following descriptive statistics as the sample size of the survey, Minimum value as the smallest value observed, Maximum value as the largest value observed, Mean value as the average value, Standard deviation as the measure of dispersion.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IOS	35	.16	2.89	.7997	.69776
OPM	35	.01	.80	.2180	.22438
CF From Operating Activities	35	.03	.88	.1683	.16612
ROA	35	.01	.40	.0797	.07857
Valid N (listwise)	35				

Source: *spss research results 2022*

The SPSS results depict the values of the four variables tested in descriptive statistical analysis: the dependent variables Investment Opportunity Set, Operating Profit Margin, Cash Flow From Operating Activities, and Return on Asset. The table description tested with SPSS shows the details for the Investment Opportunity Set variable with a sample size of 35: Mean 0.7997, Minimum 0.18, Maximum 2.89, and Standard Deviation 0.69776. The average value of the Operating Profit Margin variable with 35 samples is 0.2180, with a minimum value of 0.01, a maximum value of 0.80, and a standard deviation of 0.22438. From the results table tested with SPSS, it appears that the variable cash flow from operating activities has an average value of 0.1683, with a minimum value of 0.03, a maximum value of 0.88, and a standard deviation of 0.16612. For the Return on Asset variable with 35 samples, the average value is 0.797, with a minimum value of 0.01, a maximum value of 0.40, and a standard deviation of 0.07857.

Normality test

The variables Investment Opportunity Set, Operating Profit Margin, and Cash Flow From Operating Activities have been found to follow a normal distribution because each variable has a p-value greater than 0.05.

Multicollinearity test

It is known that there is no multicollinearity issue because the Variance Inflation Factor (VIF) is less than 5. Specifically, the VIF for Investment Opportunity Set is 1.055, which is less than 5. Similarly, the VIF for Operating Profit Margin is 1.124, and for Cash Flow From Operating Activities it is 1.180, both of which are also less than 5.

Heteroskedastisitas test

Heteroscedasticity testing using the Scatterplot graphic method. The results show that the circles form an irregular pattern, where the points are spread above and below the number 0 on the Y axis. Thus, heteroscedasticity does not occur.

Autocorrelation Test

It is known that the Durbin-Watson value obtained is 1.624, which means the D-W value is between -2 to +2 so it can be concluded that from the Durbin Watson number there is no autocorrelation.

Multiple Linear Regression Analysis

The following are the results of multiple linear regression which are shown in the table below:

Table 2. Multiple Linear Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.939	.626			
	IOS	.601	.519	.512	5.072	.000
	OPM	.125	.059	.356	2.099	.044
	CF From Operating Activities	.089	.082	.188	1.080	.289

Source: *spss research results 2022*

Based on partial test results, the influence of the Investment Opportunity Set is 5.072 and t table is 2.034. Thus tcount is greater than ttable (5.072 > 2.034) and has a significant number of 0.009 < 0.05. This means that H0 is rejected and Ha is accepted, this shows that there is a partial influence of the Investment Opportunity Set on Return on Assets. Based on partial test results, the effect of Operating Profit Margin is 2.099 and ttable is 2.034. Thus tcount is smaller than ttable (2.099 > 2.034) and has a significant number of 0.044 < 0.05. This means that H0 is accepted and Ha is rejected, this shows that there is a partial influence of Operating Profit Margin on Return on assets. Based on partial test results, the influence of Cash Flow From Operating Activities is 1.080 and t table is 2.034. Thus, tcount is greater than ttable (1.080> 2.034) and has a significant number of 0.289> 0.05. This means that H0 is accepted and Ha is rejected, this shows that there is a partial influence of Cash Flow From Operating Activities on return on assets. Based on the results of simultaneous testing using the Fcount and F table tests. The influence of Investment Opportunity Set, Operating Profit Margin and Cash Flow From Operating Activities on return on assets obtained F count of 12.691 with F table of 2.99 so that F count is greater than F table (12.691 > 2.99) and has a significant number of 0.00 < 0.05 . This means that H0 is rejected and Ha is accepted, this shows that there is an influence of Investment Opportunity Set, Operating Profit Margin and Cash Flow From Operating Activities together on return on assets, in other words Investment Opportunity Set, Operating Profit Margin and Cash Flow From Operating Activities simultaneously influence the level of return on assets directly.

DISCUSSION

The Influence of Investment Opportunity Set on Return on Assets

Investment Opportunity Set (IOS) refers to a company's chance to enhance its operations through investments. Companies with investment opportunities tend to prefer internal financing over external sources, as internal funding is typically cheaper (Jensen, 2011). Utilizing internal funds can result in reduced dividend payouts because dividends are sourced from internal funds, including company profits. Hence, the larger the investment opportunities a company has, the smaller the dividend distribution to shareholders. To measure a company's investment opportunities, researchers use the PPE/BVA ratio, which divides the book value of property, plant, and equipment (PPE) by the total book value of assets (BVA). Investment Opportunity Set is closely related to agency theory, which explains the divergence of interests between shareholders and management. This difference in interests leads to agency conflicts. Such conflicts arise particularly when there are high investment opportunities within a company. For investors or shareholders, these opportunities offer potential high returns for the company, thus expecting higher future returns on their investments. On the other hand, for management, these opportunities pose significant challenges because the risks associated with them are also high. Management is generally averse to taking such high risks as it could jeopardize their positions (Halim, 2014). Research conducted by (Sumarni, 2014) and (Purnami, 2016), linking investment opportunity set with Return on Assets, indicates that investment opportunity set does influence Return on Assets. Therefore, the magnitude of the investment opportunity set affects the profitability generated by a company.

The Influence of Operating Profit Margin on Return on Assets

According to (Harmono, 2015), Operating Profit Margin (OPM) is the ratio of operating profit to sales. OPM reflects a company's ability to generate profit from its sales and is analyzed to project the company's future profit-generating capacity. The higher the profit received by the company, the greater the availability of funds allocated for dividends, influencing the company's Dividend Payout Ratio (DPR). (Gudono, 2014) suggests that companies with higher profits tend to engage in earnings management compared to those with lower profits. Research findings from Topowijono (2016) and (Daud, 2017) indicate that the OPM variable has a positive impact on Return on Assets.

The influence of Cash Flow From Operating Activities on Return on Assets

Cash Flow from Operating Activities represents the excess cash in a company that can be distributed to shareholders as dividends (Brigham & Joel F Houston, 2016). This distribution typically occurs after the company has made capital expenditures, such as purchasing fixed assets with cash. (Jensen, 2011) states that Free Cash Flow has a positive impact on Return on Assets. The higher the Cash Flow from Operating Activities, the higher the Return on Assets, or vice versa. (Jensen, 2011) connects this Free Cash Flow concept with agency theory, which underpins researchers' hypotheses in this area. Research findings from (Saragih, 2012) indicate that net profit and operating cash flow influence Return on Assets in manufacturing companies listed on the Indonesia Stock Exchange.

The influence of Investment Opportunity Set, Operating Profit Margin, and Cash Flow From Operating Activities on Return on Assets

According to (Kasmir, 2012), Return on Assets (ROA) is used to measure the effectiveness of a company's overall operations. A lower ratio indicates less effectiveness, and vice versa, meaning it assesses the efficiency of the entire operational process. Investment Opportunity Set refers to the relationship between current and future expenditures with the value or return prospects resulting from investment decisions aimed at creating company value. Operating Profit Margin measures the percentage of gross profit that can be generated from each sale after subtracting operating expenses and costs. A higher Operating Profit Margin ratio indicates better performance (Kasmir, 2012). Operating activities are the primary revenue-generating activities of a company and other activities that are not investment or financing activities. Cash flow from operating activities is mainly derived from these primary revenue-generating activities, typically arising from transactions and other events that affect the determination of net income or loss (Sartono, 2018).

CONCLUSION

Based on the research findings, it can be concluded that partially, Investment Opportunity Set has a significant influence on Return on Assets, Operating Profit Margin has an influence on Return on Assets, and there is no significant influence of Cash Flow From Operating Activities on Return on Assets. Investment Opportunity Set, Operating Profit Margin, and Cash Flow From Operating Activities collectively influence Return on Assets.

REFERENCES

Anugrah, A. D. P. (2014). Analisis Pengaruh Investment Opportunity Set (IOS) Terhadap Return Saham Perusahaan Sektor Manufaktur. *Journal of Business and Management*, *7*(2), 94–100.

Brigham, E. F., & Joel F Houston. (2016). *Dasar-Dasar Manajemen Keuangan* (Edisi 11).

Daud, R. M. (2017). Pengaruh Operating Profit Margin, Dividend Payout Ratio, Profitabilitas, Dan Price Earning Ratio Terhadap Praktik Perataan Laba Pada Perusahaan LQ-45 Yang Terdaftar Di Bursa Efek Indonesia Tahun 2010-2014. *Jurnal Akuntansi Muhammadiyah-JAM*, *8*(1), 1–10.

Gudono, M. (2014). Hubungan Tindakan Perataan Laba dengan Reaksi Pasar atas Pengumuman Informasi Laba Perusahaan yang Terdaftar Di Bursa Efek. *Jurnal Ventura*, *10*(2), 1–14.

Halim, A. (2014). *Manajemen Keuangan Sektor Publik,Problematika Penerimaan Dan Pengeluaran Pemerintah (Anggaran Pendapatan dan Belanja Negara/Daerah)*.

Harmono. (2015). *Manajemen Keuangan Bebasis Balenced Scorecard Pendekatan Teori, Kasus, dan Riset Bisnis*.

Jensen, M. C. (2011). Theory of the firm: Managerial behavior, agency cost and ownership structure. *Journal of Finance Economic*, *3*(1), 305–360.

Kasmir. (2012). *Analisis Laporan Keuangan.* PT. Raja Grafindo Persada.

Kasmir. (2016). *Manajemen Sumber Daya Manusia (Teori dan Praktik)*. PT. Raja Grafindo Persada.

Purnami, K. D. A. (2016). Pengaruh Investment Opportunity Set, Total Asset Turn Over Dan Sales Growth Terhadap Kebijakan Dividen. *E-Jurnal Manajemen Unud*, *5*(2), 1309–1337.

Saragih, F. (2012). Pengaruh Laba Bersih Dan Arus Kas Operasi Terhadap Dividen Kas Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia. *Ekonomikawan: Jurnal Ekonomi & Studi Pembangunan*, *10*, 1–18.

Sartono, A. (2018). *Manajemen Keuangan Teori dan Aplikasi*.

Sawir, A. (2018). *Analisis Kinerja Keuangan dan Perencanaan Keuangan Perusahaan*.

Sumarni, I. (2014). Pengaruh Investment Opportunity Set Terhadap Kebijakan Dividen. *Jurnal Wawasan Manajemen*, *2*(2), 201–211.

Sunarto, & Budi, A. P. (2010). Pengaruh Leverage, Ukuran Dan Pertumbuhan Perusahaan Terhadap Profitabilitas. *Telaah Manajemen Marlie*, *6*(1), 86–103.

Thoyib, M., Firmansyah, D. A., Riza, W., & Melin, M. A. (2018). Pengaruh Current Ratio, Debt to Asset Ratio, Debt to Equity Ratio dan Total Asset Turnover terhadap Return on Assets pada perusahaaN Properti dan Real Estate di Bursa Efek Indonesia periode 2012-2016. *Jurnal Akuntansi*, *2*(4), 10–23.