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Fundamental Factors of Financial Ratios and Discretionary Accruals in Influencing the Companies' Fixed-Asset Investment Decisions

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Abstract:

Research aims: This study aims to empirically prove the influence of profitability, solvency, liquidity, activity, dividend policy, and discretionary accruals on fixed-asset investment decisions.

Design/Methodology/Approach: The researchers used consumer goods companies listed on the Indonesia Stock Exchange (IDX) from 2013 to 2019. Using the purposive sampling method, this study resulted in 163 bank-year observations. The data were then analyzed utilizing a fixed-effect model.

Research findings: The results showed that profitability, liquidity, activity, and discretionary accruals positively affected fixed-asset investment. Meanwhile, the dividend policy negatively affected fixed-asset investment. This study strengthens the pecking order theory. In addition, the research sample used internal funds as a funding source for investment in fixed assets.

Theoretical contribution/Originality: The variable added in the study distinguishing it from previous researchers is the discretionary accrual variable. Discretionary accruals have been proven to impact resource allocation, one of which is investment decisions. The additional discretionary accruals variable is expected to strengthen the influence of the consumer goods companies' fundamental factors on investment decisions in fixed assets.

Practitioner/Policy implication: Investment in fixed assets in the consumer goods companies uses internal funds because these funds are low risk and support the company's sustainability.

Research limitation/Implication: This study used dividend policy as one of the independent variables, and companies that did not distribute dividends could not be sampled.

Keywords: Discretionary Accrual; Investment Policy; Asset Turnover; Dividend Policy

Introduction

Investment decisions are an essential factor in the company's financial function. Effectiveness in investment decisions will be reflected in achieving optimal profit levels, and efficiency in investment financing will be displayed in obtaining funds with minimum costs (Sartono, 2001).

Following Lv et al. (2021), Sa'diyah (2021), and Nguyen and Dong (2013), changes in fixed investment can improve corporate performance. In addition, company expansion is generally seen as an indicator of the success or progress of a company.

Moreover, planning investment decisions is crucial because the funds needed for investment purposes are very large, and large amounts of funds cannot be recovered in the short term. However, the facts exposed that some companies still experienced investment failures, impacting bankruptcy. For example, PT Sariwangi AEA and its affiliated company PT Maskapai Perkebunan Indorub Sumber Wadung still could not keep their promise to pay bills (Kompas, 2018). PT Sariwangi Agricultural Estate Agency was declared bankrupt due to inappropriate investment policies, where investment failure caused PT Sariwangi AEA to experience financial problems and difficulty paying debts (Sugianto, 2018).

The case also indicates the importance of effectiveness in fixed assets investment decisions as a form of long-term investment. In line with Ross et al. (2008), there are three underlying questions before making this investment decision: the form of investment, the source of funding, and the payment method (Ross et al., 2008). In making investment policies, companies must also pay attention to the accuracy of investments and funding sources, which is why research examined fixed-asset investment.

Do and Phan (2022), researching investment decisions in public companies in Vietnam, found that debt maturity structure, ROA, and fixed-asset turnover positively affected investment decisions. On the other hand, cash flow and liquidity negatively affected investment. In addition, Kalusová and Badura (2022) found that investment judgment was affected by non-debt tax shield, business risk, and financial structure. Lv et al. (2021), and Nguyen and Dong (2013) also uncovered that fixed-asset investment decisions were influenced by asset quality, the previous asset investment, and macroeconomic factors. Also, Szymańska et al. (2021), using plantation companies in Poland, revealed that long-term liabilities and income investment subsidies influenced fixed-asset investment decisions. Moreover, Nguyen and Dong (2013) disclosed that fixed capital intensity, cash flow, risk, leverage, and assets affected fixed-asset investment decisions.

Previous researchers have also carried out studies on investment decisions in Indonesia. Memarista (2022) found that operating cash flow, firm value, and firm size affected fixed-asset investment decisions. Besides, Hidayat (2010) analyzed investment decisions and financial constraints. The proxies used were book-to-market ratio, cash flow, and DER. The research results showed that liquidity positively influenced investment decisions. In addition, Wahyuningsih (2001) examined the investment decisions, debt, ROI, growth, and interest-rated variables and indicated that investment and dividend decisions had negative effects. Meanwhile, Saragih (2008) studied the effect of net income, capital structure, ROI, total debt, and level of sales on investment in consumer goods companies and resulted that capital structure, return on investment (ROI), and sales positively affected investment decisions. In this case, the capital structure was the most dominant factor influencing investment decisions, and the hypothesis was tested using multiple linear regression models.

However, previous studies examining investment decisions on assets did not use discretionary accruals (Linck et al., 2013). In fact, in line with Linck et al. (2013) and Acar and Yilmaz (2020), discretionary accruals can determine a company's financial decisions, including investment decision-making. In addition, companies pursuing capital expenditures tend to carry out earnings management to bear the burden of new capital expenditures (Acar & Yilmaz, 2020). In addition, Nugroho and Jasman (2018) found that directors had great potential to use discretionary accruals to increase the investment. Following Linck et al. (2013), the researchers then added discretionary accruals to explain investment decisions, which previous research has rarely conducted. Moreover, the researchers used macroeconomic variables (gross domestic product-GDP and inflation) as control variables. The use of GDP and inflation aligns with Kalusová and Badura (2022) and Choudhary (2016) that investment decisions could not be freed from the influence of macroeconomic conditions.

Then, this study is expected to empirically prove that profitability, solvency, liquidity, asset turnover, dividend policy, and discretionary accrual affect investment policy in fixed assets. The researchers present this paper in five sections. The first section describes the research background. The second section is a literature background and hypothesis development. In the third section, the researchers explain the research method. In the fourth section, the researchers elucidate the research results and discussion. At last, the fifth section is the conclusion.

Literature Review and Hypotheses Development

Pecking Order Theory (POT)

In this study, the POT was used as a grand theory. When an entity requires funds for investment or business development, there are three alternatives: internal funding sources, debt, and equity. POT, developed by Myers (1984), reveals the level of the management preferences in choosing the source of funds to fund company activities (Guizani, 2020; Qayyum & Noreen, 2019). Based on the POT, companies prefer funding from internal sources because the costs are cheaper from external sources, and there is no need to disclose other company information (Guizani, 2020). Previous researchers used POT in explaining debt and capital policies, where the emphasis of this theory is on internal funding (see Guizani, 2020; Simatupang et al., 2019; Rodrigues et al., 2017; De Jong et al., 2011). However, if the company needs debt, the POT will recommend using debt funding (De Jong et al., 2011).

Moreover, the company's funding needs can come from the need for investment. Yıldırım and Çelik (2021) used POT to evaluate the relative substance of external and internal funding sources in financing the company's investment. They found that highly leveraged companies chose equity financing at high investment when internal funds were restricted to finance investment spending. In addition, companies with low leverage better use debt as a source of funding for their investments (Yıldırım & Çelik, 2021). On this basis, the current researchers employed the POT to explain investment decisions in fixed assets.

Furthermore, investment determination is the most critical decision to increase the company's value (Lv et al., 2021; Sa'diyah, 2021; Nguyen & Dong, 2013). The fundamental investment decision is to allocate funding sources (Syahyunan, 2013). Besides, investment decisions are critical because, through investment decisions, the company can realize the company's goals, as stated by Fama (1978). Investment decisions also involve determining the allocation of funds in investments (Sartono, 2015). In addition, Lang et al. (1996) stated that the director chooses to increase debt based on personal information about the company's future growth.

In manufacturing companies, their investment needs in fixed assets. Fixed assets are used to increase production scale and reduce costs by choosing more capital-intensive production methods (Szymańska et al., 2021). The choice of investment in fixed assets in manufacturing companies is the main key to the effectiveness of company operations and supporting business continuity. According to Adam and Goyal (2008), investment decisions can be seen from growth opportunities, namely investment decisions based on changes in the book value of the company's fixed assets.

Financing Hierarchy in POT

POT arises because of information asymmetry in the entity. Asymmetric information is disparate information distribution. Oliner and Rudebusch (1992) made an analogy of information asymmetry with lemon sellers; more "melon" sellers know more about melons being sold than buyers. In this regard, directors mostly have more information about an entity's performance, expectations, and risks than lenders or outside investors. Thus, the higher the information asymmetry, the higher the risk for the company. In other words, the high-risk investors face causes demand for the return on credit (Oliner & Rudebusch, 1992).

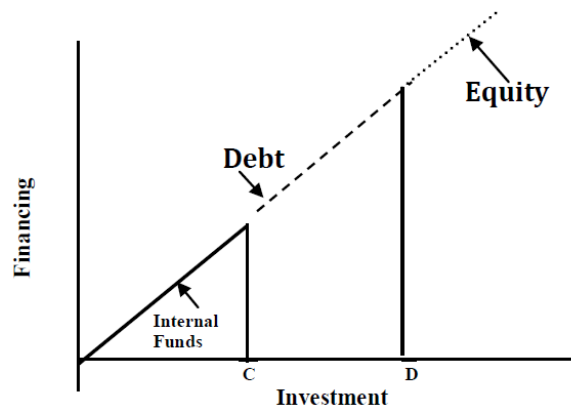


Figure 1 The Financing Hierarchy Based on POT
Sources: Molla (2019)

On the company side, it is the cause of high-cost external funding, so companies prioritize internal funds that have low costs (Yıldırım & Çelik, 2021, Molla, 2019). This policy is to maintain equity interests. However, if the company does not have retained earnings, the

company will use debt. Debt is chosen because it has a lower cost than equity (Yıldırım & Çelik, 2021). In addition, the cost of debt can lower taxes. However, debt at a certain level will burden the company and approach the company at risk of bankruptcy. Then, the firm will issue new shares as a funding source in this condition. Thus, funds from equity are the last source of funds from POT (Guizani, 2020).

Hypotheses Development

The first variable used to explain investment decisions on fixed assets was profitability. Profitability is the firm's ability to obtain net income from activities carried out in the accounting period (Brigham et al., 1999). The company can determine how much profit will be obtained with the number of assets owned through the profitability ratio. It is often referred to as return on assets (ROA). Suppose the company can get a significant profit by using the total assets. In that case, it will be possible for the company to expand its investment to get the maximum profit or more significant lag. Therefore, this ratio is essential for making company investment decisions. Research conducted by Saragih (2008), Rahmiati and Huda (2015), and Endiana (2016) showed that profitability positively affected investment decisions, while Wahyuni et al. (2015) revealed that profitability negatively affected an investment decision.

According to Sartono (1997), profitability is the firm's power to earn a profit concerning sales, assets, and capital. This profitability ratio describes the effectiveness of the company's management. Profitability is also closely related to the earnings earned by the company and will affect the availability of retained earnings used to meet investment needs (Rahmiati & Huda, 2015). One internal funding source for the company is to invest in the retained earnings generated from operating activities (Goenawan & Wasistha, 2019). Moreover, retained earnings are the firm's main source of financing growth (Thirumalaisamy, 2013) and subsequently impact profitability growth (Dewi & Fachrurrozie, 2021). High profitability or the company's ability to earn significant profits will allow it to use for investment purposes. Okwo et al. (2012) and Olatunji and Adegbite (2014) found a relationship between fixed asset investment and profitability. Furthermore, according to the pecking order theory, financial managers will take advantage of the profits earned in advance for investment activities. According to the priority scale, the company can seek debt from third parties. Sajid et al. (2016), Rahmiati and Huda (2015), Endiana (2016), and Nguyen and Dong (2013) proved that profitability positively influenced investment.

H₁: Profitability positively affects fixed-asset investment decisions.

The second variable employed to explain investment decisions on fixed assets was solvability. The solvency ratio describes the company's power to meet its long-term obligations. Usually, the company has a long-term debt component in its financial statements. However, companies experiencing financial constraints have difficulty using external funding. The company's external funding is obtained from issuing shares and debt. In addition, external funding is measured using leverage, calculating the use of debt.

Moreover, the relationship between investment determinations and leverage indicates that debt will make company managers pay interest to bondholders so that managers will be more careful investing in projects detrimental to the company. Ahn et al. (2006) and Aivazian et al. (2005) found that leverage positively affected investment. On the other hand, according to the research results by Danso et al. (2019), Sajid et al. (2016), Wahyuni et al. (2015), and Ogilo and Ali (2015), leverage negatively affected investment determination. Different results in research by Priscilla and Salim (2019), and Perwitasari (2021) showed that leverage did not affect the firm's investment determinations.

In addition, solvency or leverage is a specific period firm's potential to pay debts, both short-term and long-term, when it is running well or about to liquidate (Graham & Brown 2005). The use of solvency ratios for companies provides many benefits, both low and high. The calculation shows that the company's high solvency ratio results in a greater risk of loss. However, there is also an opportunity to earn a significant profit. On the other hand, if the company has a lower solvency ratio, it certainly has a more negligible risk of loss, especially when the economy is down.

POT also suggests that managers prioritize domestic funds to finance their investments (Guizani, 2020; Qayyum & Noreen, 2019). The company prioritizes debt over issuing new shares if internal funds are lacking. According to Baskin (1989), who examined the pecking order theory, the debt ratio is inversely related to the company's earning potential. In addition, the company's debt causes it to pay interest on the borrowed debt, and the interest payments reduce its profit on its investment projects. Research conducted by Sajid et al. (2016), Ogilo and Ali (2015), and Wahyuni et al. (2015) confirmed that leverage negatively affected investment determination.

H₂: Solvency negatively affects fixed-asset investment decisions.

The third variable utilized to explain investment decisions on fixed assets was liquidity. According to Kristianti (2004), liquidity is the company's ability to meet its short-term obligations. Liquidity shows whether or not the company has difficulty with the available cash to fund its investment. The company is said to have no difficulty funding its investment if it can generate cash to finance it. Companies with high liquidity can invest more in capital expenditures, fixed assets such as land or property, production machine, buildings, engine, and equipment. According to Hartono and Wahyuni (2005), and Rashid and Karim (2018), liquidity positively affected investment decisions, whereas research by Yunita and Yuniningsih (2020) found that liquidity had a negative effect on investment decisions.

Furthermore, liquidity is the company's potential to meet short-term needs using its current assets. Current assets generally include cash, cash in the bank, securities, receivables, and inventories, while current liabilities consist of trade payables, unpaid operating costs, short-term notes receivable, short-term payables, tax accruals, and other accrued expenses (Brigham & Houston, 2013). One of the ratios used to measure liquidity is the current ratio (CR). The current ratio measures how the company can meet its short-

term debt (maturity less than one year) using current assets. For companies that can generate good liquidity, the opportunity to invest also improves, and it is a sign that the company can generate cash as internal funds to finance its investments and pay off its debts. If the company can generate cash, the company does not experience financial difficulties. Thus, companies with high debt levels will not invest in fixed assets.

According to POT, companies choose internal funding instead of external funding. Companies with high liquidity will gravitate to finance their investments using their internal funds because liquidity is the company's internal funding source. Companies that can generate good liquidity and investment are also getting better. It signifies that the company can generate cash as internal funds to finance its investments. It means that liquidity positively affects investment decisions in fixed assets. Research conducted by Sajid et al. (2016), Hartono and Wahyuni (2005), and Rashid and Karim (2018) uncovered that liquidity positively affected investment decisions. However, Kalusová and Badura (2022) found that liquidity negatively influenced investment determination.

H₃: Liquidity positively affects fixed-asset investment decisions.

Moreover, the activity ratio describes the company's efficiency level using its resources through sales activities, collection of receivables, production, promotions and others. This ratio is also used to assess the company's ability to carry out the company operating activities. The activity ratio is calculated using the asset turnover ratio. This ratio determines how efficiently a company generates sales from its investment in assets owned. In their investment decisions, managers also need to consider this ratio to determine whether the company requires additional investment in fixed assets or efficient use of assets owned. Research conducted by Warrad and Omari (2015), and Makarim and Noveria (2014) showed that the activity ratio had a positive effect on investment decisions, while research by Siringoringo (2019) revealed the results of a negative effect of the activity ratio on investment determination.

In addition, total asset turnover (TATO) is an indicator to measure a company's sales or revenue relative to the value of its assets. TATO is also used to measure the company's efficiency in using its assets to generate income. A higher TATO indicates an efficient company in using its assets. Conversely, a low TATO reflects poor asset management and identifies production company management problems. In addition, POT states that managers recommend internal funds to finance their investments. Through the asset turnover ratio, management can determine the use of all company assets compared to sales in a certain period. Companies with high fixed-asset turnover ratios indicate that the company's sales are good. The company's sales results are an internal funding source for the investment, indicating that it will tend to increase its investment through a high asset turnover ratio. Vice versa, the company will reduce its investment if the asset turnover ratio is low. Research conducted by Do and Phan (2022), Hartono and Wahyuni (2005), and Makarim and Noveria (2014) verified that asset turnover increased investment decisions.

H₄: Asset turnover positively affects fixed-asset investment decisions.

The fifth variable used to explain fixed-asset investment decisions was dividend policy. Each company's dividend policy has a different distribution level (Fauzi, 2015). The company can determine how the percentage of dividends is distributed to shareholders. Dividend payments then influence the available funds used for investment in the future. Dividend payments will also affect retained earnings in the company and how much internal equity in the company will impact the company's decision to invest. In this case, companies with large investment opportunities will affect the size of the dividends they distribute to shareholders.

In addition, a dividend policy is a profit allocation decision that is the right of shareholders (Husnan & Pamudji, 2013). Profit in a certain period can be divided into dividends or retained earnings to be reinvested. Thus, dividend payments affect the share of profits used for future investments. Dividend payments will also affect retained earnings in the company. How much internal equity in the company will impact the company's decision to invest. Then, the investment opportunities the company has will influence the dividends distributed. This reason is the basis of POT as a theory in explaining dividend policy with investment policy.

POT suggests that companies use internal equity first (Guizani, 2020; Qayyum & Noreen, 2019). If they need external financing, the company will issue debt before using external equity. The relationship between pecking order theory and dividend policy is that companies prefer to use retained earnings to finance new investments. A company distributing many dividends causes a decrease in internal funds (retained earnings), which will be used for company investment activities. Research conducted by Sruthi et al. (2017), Rahmiati and Huda (2015), and Elston (1996) proved that dividend policy had a negative effect on investment decisions.

H₅: Dividend policy negatively affects fixed-asset investment decisions.

Next, the sixth variable employed to explain investment decisions on fixed assets was discretionary accrual. Discretionary accrual is a proxy for earnings management (Faradila & Cahyati, 2013). High earnings management indicates that the company will make high additional investments in the current period (Mcnichols & Stubben, 2008). When earnings are overstated, there will be an over-invest in the company's fixed assets (Rokhaniyah, 2019). Then, earnings management leads to excess investment. Earnings management is also a consequence of an excess investment in the past, so it can be said that earnings management causes direct costs to investors in the form of inefficient investment decisions. Therefore, earnings management, mainly seen as targeting external parties for the company, can also influence the company's internal decisions (Mcnichols & Stubben, 2008). In addition, one indicator used as information in the decision-making process is earning. Earnings quality measurement focuses on the benefits obtained for stakeholders (Dechow et al., 1995). According to Gissel et al. (2005), earnings quality is the ability of

earnings to represent the truth of company earnings and the ability to predict future earnings.

Discretionary accruals are also used to measure earnings management because they are abnormal accruals made by management (Khayat, 2012). In addition, discretionary accruals can reflect management's personal information to describe the condition of the company to allow managers to act opportunistically in the company's business processes. According to Chen et al. (2018), the earnings management ability of managers depends on how strong the internal control is in the company. Earnings management often occurs in companies with weak internal control and revenue accounts. Research conducted by Do and Phan (2022), Rokhaniyah (2019), Acar and Yilmaz (2020), Linck et al. (2013), and Shao et al. (2017) confirmed that discretionary accruals had a positive effect on investment decisions.

H₆: Discretionary accruals positively affect fixed-asset investment decisions.

Research Method

The research object was consumer goods companies listed on the Indonesia Stock Exchange (IDX) from 2013 to 2019. The researchers used a consumer goods company as this research's object because the investment error case used as a gap phenomenon (PT Sariwangi AEA and PT Maskapai Perkebunan Indorub Sumber Wadung) was companies categorized as a consumer goods company. The mean population of 46 companies was selected based on purposive sampling and unbalanced data methods, and then 29 companies were obtained with the sample selection criteria in Table 1. The total observations comprised seven years, and 325 analysis units were obtained. In addition, one hundred sixty-two data did not match the criteria, and finally, 163 units of analysis were used.

The researchers used dividend policy as one of the independent variables and excluded companies that did not distribute dividends during the year of observation. The sample distribution is presented in Table 1.

Table 1 The Results of Sample Selection Based on Purposive Sampling and Unbalanced Data Method

No	Criteria	2013	2014	2015	2016	2017	2018	2019
1.	Consumer goods companies listed on the IDX	43	44	45	45	48	50	50
2.	Company that did not distribute dividends	25	23	25	23	23	21	22
Number of sample companies		18	21	20	22	25	29	28

This study used data sources in the financial and annual reports published on each company's website.

In this case, an investment decision (INV) is a policy to invest in some assets to gain future profits and maximize returns (Saputro & Lestari, 2019; Choudhary, 2016). In addition, fixed assets are investments in tangible assets held for production purposes, providing labor services or leasing, which are of high value and have a service life of more than one year (Wang, 2018). Related to this, the primary problem faced by financial managers is the effectiveness in allocating types of assets into investments that will bring profits in the future. The form, type, and composition of the investment will affect the rate of return in the future. However, the expected investment cannot be estimated with certainty. Thus, the researchers formulated investment decisions to the ratio of the difference between total fixed assets for the coming year (t+1) and total fixed assets for the current year (t) to total assets for the current year (Saragih, 2008)

$$INV = \frac{\sum Fixed Asset_{t+1} - \sum Fixed Asset_t}{\sum Fixed Asset_t}$$

Profitability is the effectiveness of management indicated by the profits generated from the sale or investment of the company (Copeland et al., 2005). This study's profitability was proxied using the return on assets (ROA) ratio. This ratio compares net income after tax with total assets. The return on assets (ROA) formula is as follows (Babalola & Abiola, 2013):

$$ROA = \frac{\text{Net profit}}{\sum \text{assets}}$$

The solvency ratio (leverage) explains the company's assets whose funding comes from debt (Hayes, 2020). According to Husna and Satria (2019), the debt to asset ratio (DAR) is used as a leverage indicator. DAR is also a ratio employed to measure the number of assets financed by debt. The higher the DAR indicates, the greater the number of assets financed by debt and the smaller the number of assets financed by capital. The formula for the DAR is as follows (Kuzucu, 2015):

$$DAR = \frac{\sum \text{debt}}{\sum \text{Asset}}$$

The liquidity ratio measures the company's ability to meet its short-term obligations. This ratio compares short-term liabilities with the available short-term resources to meet those obligations. The liquidity ratio shows the company's ability to pay off its short-term obligations. In addition, a low liquidity ratio indicates a difficulty for the company to pay off its short-term obligations. This ratio also compares the company's current assets with the company's current liabilities. According to Kuzucu's research, in this study, liquidity was proxied using the current ratio (CR) :

$$CR = \frac{\sum \text{Current Asset}}{\sum \text{Current Liabilities}}$$

Total assets turnover measures the number of times the company's total assets generate sales. This measure indicates efficiency, where the company uses all its assets to generate sales. TATO was calculated by the following formula (Warrad & Omari, 2015):

$$TATO = \frac{\sum \text{Net Sales}}{\sum \text{Total Asset}}$$

Moreover, this study used the dividend payout ratio to measure the effect of dividend policy on fixed-asset investment decisions. DPR was calculated by comparing total dividends with net income, proxied by the formula, as follows (Kuzucu, 2015):

$$DPR = \frac{\sum \text{Dividend}}{\sum \text{Net Profit}}$$

In this study, the test used a measure of discretionary accruals obtained from the error term total accruals using the Jones model (1991), modified by Dechow et al. (1995). The modified Jones model was chosen because this model takes into account cash in operations. Operating cash flow variables were then used to control extreme levels of performance. After all, operating cash flow determines the amount of profit obtained, where the more significant operating cash will indicate the company's opportunity to earn large profits. Hence, earnings management could be carried out.

$$TA_{it} = N_{it} - CFO_{it}$$

Total accruals by Jones (1991) modified by Dechow et al. (1995) were then formulated as follows:

$$TA_{it}/A_{it-1} = \alpha_1 (1/A_{it-1}) + \alpha_2 ((\Delta RE_{vit}/A_{it-1}) - (\Delta RE_{cit}/A_{it-1})) + \alpha_3 (PPE_{it}/A_{it-1}) + \epsilon_{it} \dots (1)$$

Based on Equation 1, regression was carried out to determine the coefficients 1, 2, and 3 to predict the value of non-discretionary accruals. Meanwhile, the calculation of non-discretionary accruals according to the modified Jones model was then formulated with Equation 2:

$$NDA_{it} = \alpha_1 (1/A_{it-1}) + \alpha_2 ((\Delta RE_{vit}/A_{it-1}) - (\Delta RE_{cit}/A_{it-1})) + \alpha_3 (PPE_{it}/A_{it-1}) + \epsilon_{it} \dots (2)$$

To find the value of discretionary accruals was by subtracting the total accruals with non-discretionary accruals (Equation 3).

$$DA_{it} = (TA_{it}/A_{it-1}) - NDA_{it} \dots (3)$$

DA_{it} = Discretionary accruals of a company I in year t

In line with the findings of Lv et al. (2021), Wang (2019), Choudhary (2016), and Nguyen and Dong (2013) that macroeconomic conditions influenced economic decisions, the researchers used two macroeconomic indicators as control variables. First, GDP is the value of goods and services measured at constant prices (regardless of inflation) (Sukirno, 2004). Then, GDP and inflation were measured in percentage in 1 year. Both data were sourced from reports from the Central Bureau of Statistics.

Furthermore, hypothesis testing in this study was carried out using inferential analysis techniques. Before testing the hypothesis, a classical assumption test (multicollinearity, heteroscedasticity, and autocorrelation) was done first. The hypothesis testing results were based on the P-value. Following (Chai & Mirza, 2019), if the p-value is less than 0.01, the hypothesis is accepted, with a significance level of 1%. If the p-value is between 0.01 to 0.05, the hypothesis is accepted at 5%. Meanwhile, if the p-value is between 0.05 to 0.10, the hypothesis is accepted at 10%.

This study used panel data regression analysis with the EViews 12 data processing program. The equation model can be written with the following equation:

$$INV = \alpha + \beta_1 ROA_{it} + \beta_2 DAR_{it} + \beta_3 CR_{it} + \beta_4 TATO_{it} + \beta_5 DPR_{it} + \beta_6 DA_{it} + \beta_7 GDP_{it} + \beta_8 INF_{it} + \epsilon_{it} \dots (4)$$

where: INV = Fixed-asset investment decision; α = Constant; β = Coefficient; ROA = Return on asset; DAR = Debt to asset ratio; CR = Current ratio; TATO = Total asset turnover; DPR = Dividend payout ratio; DA = Discretionary accruals; GDP = Gross domestic product; INF = Inflation

Result and Discussion

Table 2 presents descriptive statistics of each variable's mean, maximum, minimum, and standard deviation. The mean investment in fixed assets was 3.9737%. Some companies invested in fixed assets of 52.6491%. However, some companies invested in fixed assets of -0.04558%.

The research sample had a mean ROA of 14.1124%, a maximum value of 92.50505, and a minimum value of -0.056076%. The standard deviation of ROA was 0.131169. These scores indicate that the company had a large variation in ROA. Table 2 also shows that the sample had a mean DAR of 37.6606%. This DAR score denotes that the sample had more dominant equity than debt.

Then, the mean CR of 302.3496% indicates that the sample had more current assets than current liabilities. However, a sample had a large asset investment with a CR score of 5.3906%. Meanwhile, TATO's mean score of 130.4746% signifies that the sample had a larger number of sales, i.e., 130.4746% of total assets.

Moreover, the mean DPR was 50,8055%, with a maximum score of 523.5785% and a standard deviation of 0.516280. These scores show that the mean sample distributed 50,8055% of the net income dividend. However, the sample had a large variation in dividend policy.

The opposite condition is reported in Table 2, where the sample had a mean discretionary accrual of 0.001516 and a standard deviation of 0.005036. These scores signify that the sample had discretionary accruals, which tended to be homogeneous.

Table 2 Descriptive Statistics

Variable	Descriptive statistics				
	N = 163	Mean	Max	Min	Std. Dev
INV		0.039737	0.526491	-0.04558	0.071163
ROA		0.141124	0.925050	-0.056076	0.131169
DAR		0.376606	0.769528	0.066187	0.180850
CR		3.023496	12.63370	0.513906	2.247410
TATO		1.304746	3.104760	0.484484	0.588998
DPR		0.508055	5.235785	0.388131	0.516280
DA		0.001516	0.039337	-0.018007	0.005036
INF		0.045158	0.083800	0.027200	0.022923
GDP		0.051022	0.055600	0.048800	0.001888

The white test's heteroscedasticity test resulted in an obs*R-Square value of 18.62 and a chi-square probability of 0.0170. This result was smaller than 0.05, indicating that there was no heteroscedasticity. In addition, the p-value of the Breusch-Godfrey Serial Correlation LM test was 0.21 (greater than 0.05). Thus, there was no serial autocorrelation problem. The multicollinearity test using the correlation test between variables is presented in Table 3.

Table 3 Matrix Correlation

	ROA	DAR	CR	TATO	DPR	DAR	INF	GDP
ROA	1							
DAR	-0.029	1						
CR	0.1202	-0.7222	1					
TATO	-0.223	-0.0732	0.0465	1				
DPR	0.0004	-0.6722	0.0995	0.5970	1			
DA	-0.150	0.1244	-0.1204	0.1810	0.0143	1		
INF	-0.068	0.0579	-0.0313	0.0300	0.0390	-0.0195	1	
GDP	-0.097	0.0806	-0.0752	0.1720	0.0706	0.0171	0.1273	1

Table 3 reveals that the largest correlation was -0.7222. This score was less than 0.8 and indicated no multicollinearity problem in the model.

The next steps were to conduct the Chow test to determine the best model between the common and fixed effects. The Chow test results resulted in a probability score of 0.000. The probability score was less than 0.05; thus, using the fixed-effect test is recommended. Furthermore, the researchers performed the Hausman test and generated a probability

score of 0.000. The Hausman test results recommended using a fixed effect to test the hypothesis.

The results of the fixed effect test are presented in Table 4.

Table 4 Panel Data Regression-Fixed Effect Model

Variable	Coef.	Std. Err.	T-Stat.	Prob.
C	2.544371	0.410404	6.199676	0.0000
ROA	0.075962	0.045201	1.680542	0.0953*
DAR	0.121845	0.111374	1.094017	0.2761*
CR	0.162485	0.090562	1.794286	0.0752*
TATO	0.403405	0.027175	14.84446	0.0000***
DPR	-0.563443	0.048873	12.55643	0.0000***
DA	5.210465	2.521501	2.066414	0.0409**
Inflation	-0.980934	0.388499	-2.524933	0.0128**
GDP	-0.165190	4.330494	-0.038146	0.9696*

*** significant on 1%, ** significant on 5%, * significant on 10%

Based on Table 4, the researchers summarized the acceptance or rejection of the proposed hypotheses (see Table 5).

Table 5 The Results of the Fixed Effect Test

No	Statement	Coefficient	Sig	Result
1	Profitability positively affects fixed-asset investment decisions.	0.07596	0.0953	Accepted
2	Solvency positively affects fixed-asset investment decisions.	0.01218	0.2761	Rejected
3	Liquidity positively affects fixed-asset investment decisions.	0.16249	0.0752	Accepted
4	Asset turnover positively affects fixed-asset investment decisions.	0.40341	0.0000	Accepted
5	Dividend policy positively affects fixed-asset investment decisions.	-0.56344	0.0000	Accepted
6	Discretionary accruals positively affect fixed-asset investment decisions.	5.21046	0.0409	Accepted

Discussion

Table 3 displays that profitability ratios positively and significantly influenced fixed-asset investment decisions. This result aligns with the pecking order theory, where managers use the profits earned first for investment activities according to the priority scale. The results of this study also confirm that the sample preferred internal funds over external funds as a source of investment funding (Guizani, 2020; Simatupang et al., 2019; Rodrigues et al., 2017; De Jong et al., 2011). In this case, companies with a good level of profitability will decide to invest in fixed assets. It is because the company's profits are the preferred source of internal funds by managers to invest in fixed assets. In their investment decisions, profitable companies tend to invest in their fixed assets, which is

expected to increase their company's profits. The results of this study are also in line with previous research by Rahmiati and Huda (2015), Yunus (2017) and Endiana (2016), who found that profitability had a positive effect on investment policy.

However, the solvency ratio did not affect the company's fixed-asset investment decisions. The results of this study are consistent with the POT. Based on the POT, companies prefer funding from internal sources rather than from external sources to finance the company's operational activities (Yıldırım & Çelik, 2021; Molla, 2019). The solvency ratio determines how much of the company's assets are funded by debt as the company's external funding source. In this regard, the effect of solvency on the investment decisions of the company's fixed assets indicates that even though consumer goods companies have a large amount of debt, consumer goods companies will continue to invest because the production process must still be carried out and require additional investment capital in the form of fixed assets to run the production. It can also happen because funding from external parties or debt does not guarantee that the company will get a higher return. Even if it has poor debt management, the company will take risks. The high risk the company will obtain can result in leverage not being used to guide company management in making investment determinations. In the POT approach, funding from debt and equity is the last source of funding (Guizani, 2020), so in this study, leverage did not affect the fixed asset investment policy. The results of this study are in line with previous research by Zaki (2013), Priscilla and Salim (2019), and Perwitasari (2021), which found that the solvency ratio did not affect investment policy.

In addition, the liquidity ratio positively and significantly influenced fixed-asset investment decisions. This study's results align with the POT that companies with high liquidity prefer to invest using their internal funds. Liquidity indicates whether the company can fund its investment with available cash or not. Companies with a high liquidity level will decide to invest in fixed assets. It is because the company has the opportunity to carry out investment activities. After all, the company can pay its short-term debt by using its current assets. This study corroborates previous research by Hartono and Wahyuni (2005), and Hidayat (2010), which revealed that liquidity had a positive effect on investment policy.

The asset turnover ratio also positively and significantly influenced fixed-asset investment decisions. This study's results align with the pecking order theory, suggesting that managers prioritize internal funds to finance their investments. Meanwhile, asset turnover shows how effectively the company uses its overall assets to generate sales and profit. Companies with a high asset turnover will decide to invest in fixed assets. It is because the higher the level of asset turnover means the company effectively manages its assets. The level of sales will also be higher and generate profits that will affect managers' investment decisions. The results of this study are in line with previous studies by Hartono and Wahyuni (2005), Warrad and Omari (2015) which have proven that the turnover ratio increased investment in fixed assets.

Nevertheless, the dividend policy negatively affected fixed-asset investment decisions. This study is consistent with the POT. Packing order theory states that companies tend to

use internal equity first and external financing if necessary. Dividend payments affect the availability of funds that can be used for investment in the future. Dividend payments will also affect retained earnings in the company; how much internal equity in the company will affect the company's decision to invest. In addition, companies that pay large dividends to shareholders will decrease internal funds in the form of retained earnings for company investment activities. This study's results support previous studies by Rahmiati and Huda (2015) and Elston (1996), which have confirmed the positive influence between dividend policy and fixed asset investment.

Furthermore, discretionary accruals positively and significantly affected investment decisions in fixed assets. This study's results align with the POT, stating that companies will prefer internal funding over external funding to reduce funding costs. Companies that carry out earnings management (discretionary accruals) also tend to make investment decisions. It is because earnings management carried out by managers in financial statements will provide a positive signal for decision-makers within the company. Also, managers carry out discretionary accruals because there is an intention, not due to the company's condition, that wants changes in considerations and accounting methods, shifting costs and revenues. By doing earnings management, decision-makers within the company see that the financial statements look good and decide to invest (expansion) based on these financial statements. This study's results align with previous research by McNichols and Stubben (2008) and Rokhaniyah (2019), which found a positive relationship between discretionary accruals and fixed-asset investment.

Moreover, the test results on macroeconomic indicators (GDP and inflation) showed that the increase in GDP and inflation caused directors to reduce their fixed assets investments. Increasing GDP means increasing people's purchasing power (Dai & Sulila, 2020). This increase in people's purchasing power will increase consumption, so companies must increase their production scale to meet the increased consumption. However, if an increase in inflation accompanies the increase in GDP, it will impact the decline in people's purchasing power. This condition will cause companies to reduce their investment to reduce the scale of their production. These results corroborate the findings by Wang (2019), Asab and Al-tarawneh (2018) that there was a correlation between GDP and inflation with investment in fixed assets. Meanwhile, Nguyen and Dong (2013) found a negative correlation between GDP and economic growth.

Conclusion

This study aimed to empirically prove the effect of profitability, liquidity, activity, and discretionary accruals on investment decisions in fixed assets. Using consumer goods companies listed on IDX as the samples, this study found that an increase in profitability, liquidity, asset turnover, and discretionary accruals would cause companies to increase their investment in fixed assets. In addition, the addition of dividends distributed to shareholders caused investment in fixed assets to decrease. This result strengthens the pecking order theory, where the company emphasizes internal funds as a funding source for investment in fixed assets.

Further, this study contributes to shareholders evaluating the performance of shares owned, where companies prefer to reduce dividends paid to shareholders to increase investment. Hence, company directors gain more long-term profits by increasing fixed assets and the company's production scale. In addition, consumer goods companies listed on the Indonesia Stock Exchange use internal funds as a source of investment funding because this source of funds is safer and supports the sustainability of the company's operations.

This study used consumer goods companies listed on IDX as the research object. In addition, this study utilized dividend policy as one of the independent variables so that companies that did not distribute dividends could not be sampled. For this reason, further researchers can expand the study with other research with different characteristics from food companies.

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