

The Effect of Business Strategy, Managerial Ability, Multiple Large Shareholders, and Earnings Management on Investment Efficiency

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Abstract

Companies often withhold or reject projects that generate net present value. As a result, investment decisions are not optimal and lead to lower investment efficiency. This study examines the effect of business strategy, managerial ability, multiple large shareholders, and earnings management on investment efficiency. The sample was selected from companies listed on the Indonesia Stock Exchange for 2019-2021. Financial and insurance industry companies were excluded because they have different accrual characteristics. Several control variables are added to the regression model. The results show that business strategy is associated with investment efficiency. In contrast, managerial ability, multiple large shareholders, and earnings management have no effects on investment efficiency. As for control variables, operating cash flow, debt-to-equity ratio, firm size, and return on assets are associated with investment efficiency.

Keywords: *business strategy, earnings management, investment efficiency, managerial ability, multiple large shareholders.*

Abstrak

Dalam situasi tertentu, perusahaan seringkali menahan atau menolak proyek yang menghasilkan nilai sekarang bersih. Akibatnya, keputusan investasi menjadi tidak optimal dan menimbulkan inefisiensi investasi. Penelitian ini menguji pengaruh strategi bisnis, kemampuan manajerial, *multiple shareholder* besar, dan manajemen laba terhadap efisiensi investasi. Sampel dipilih dari perusahaan yang terdaftar di Bursa Efek Indonesia periode 2019-2021 dengan menggunakan purposive sampling. Perusahaan industri keuangan dan asuransi dikeluarkan karena memiliki karakteristik akrual yang berbeda. Beberapa variabel kontrol ditambahkan ke model regresi. Hasil penelitian menunjukkan bahwa strategi bisnis berhubungan dengan efisiensi investasi. Sebaliknya, kemampuan manajerial, banyak pemegang saham besar, dan manajemen laba tidak berpengaruh terhadap efisiensi investasi. Untuk variabel kontrol, arus kas operasi, debt to equity ratio, ukuran perusahaan, dan return on assets berhubungan dengan efisiensi investasi.

Kata Kunci: *strategi bisnis, manajemen laba, efisiensi investasi, kemampuan manajerial, multiple large shareholders.*

1. INTRODUCTION

Optimal investment decisions are accomplished when resource allocation to various investment projects results in positive net present value (Biddle et al., 2009). Ensuring that the company's resources have been carried out efficiently is one of the main responsibilities of

managers. Managers with good managerial skills are expected to be able to reduce mistakes in making investment decisions so that over (under) investment can be eliminated (Lai dan Liu, 2018). Upper echelon theory suggests that managerial ability reflects psychological characteristics of managers such as cognitive abilities, values, and basic knowledge. These characteristics are very crucial in making strategic decisions including investment decision-making. In addition, financial reports help investors make the right investment decisions. (Jiang *et al.*, 2018).

Business strategy may also affect investment efficiency. Literature on strategic management suggests that prospector strategy is highly focused on innovation and defender strategy is more efficiency-oriented (Siddique dan Rasheed, 2023; Navissi *et al.*, 2017). Prospectors tend to be risk-takers in investment decisions and are very focused on leveraging new technology to develop new products. The strategy will result in over-investment due to an excessive allocation of firms' resources to unprofitable projects. On the other hand, Defenders place greater emphasis on production and distribution efficiency and avoid investing in irrelevant technologies. Defenders tend to be more cautious in allocating resources to various projects which results in under-investment.

Agency theory suggests that agency problems can be mitigated by establishing an effective external control system (Jensen & Meckling, 1976). One of the external controls is the existence of large shareholders. Previous research shows that firms with multiple large shareholders tend to have higher investment efficiency than those of one large shareholder (Maury and Pajuste, 2005). Since firms with multiple large shareholders are closely monitored, the risk-taking behavior of managers in selecting investment projects decreases. Jiang *et al.*, (2018) argue that companies with many large shareholders exercise tighter control over managers.

This study re-examines the effect of business strategy, managerial ability, and multiple large shareholders on investment efficiency and proposes earnings management as a new variable to differentiate it from previous studies. As previously stated, information asymmetry creates an opportunity for managers to engage in earnings management. Moreover, Jensen (1986) argues that information asymmetry results in moral hazard. In the context of the allocation of corporate resources, moral hazard occurs when investment decisions are not made rationally but to fulfill personal goals which in turn lead to over (under) investment. Thus, higher earnings management will result in lower investment efficiency. This research offers practical contributions related to investment-decisions making. Specifically, this study provides additional insight into managing company resources to increase investment efficiency and implement appropriate policies so that under (over) investment can be avoided.

2. LITERATURE REVIEW AND HYPOTHESES FORMULATION

Agency Theory

Agency theory describes the relationship between management as an agent and shareholders as principals (Jensen and Meckling, 1976). Shareholders delegate authority to managers and are not involved in making strategic decisions. However, the situation creates information asymmetry for managers to have more accurate information about the condition of the company relative to shareholders. They can exploit the information advantage for personal

gain through various schemes. One of which is allocating excessively the firm's resources to unprofitable projects. Investment decisions are more heavily directed to achieve personal targets at the expense of shareholders' interests (Jensen, 1986). Thus, information asymmetry leads to inefficient investment decisions (Jensen and Meckling 1976; Jensen 1986). Deviations occur when companies invest excessively in projects which results in negative present value. Deviations also occur when companies fail to invest in projects with a positive net present value. Therefore, friction originating from information asymmetry causes investment inefficiency.

Specifically, Jensen (1986) argued that information asymmetry results in moral hazard and adverse selection. Moral hazard arises when managers act opportunistically in carrying out their responsibilities in managing company resources. In this sense, managers will likely invest in risky projects to achieve personal gains. Reliable financial reports increase the ability of shareholders to monitor the investment activities of managers thereby reducing the possibility of moral hazard. (Umiyati, 2017). Meanwhile, adverse selection occurs due to inadequate information possessed by investors when making stock trading. Shareholders erroneously believe the actual condition of a company and decide to buy stocks at a higher price which allows the company to get an excessive amount of capital from the capital market. Excessive capital generated from the capital market causes managers to fall into over-investment.

Business Strategy and Investment Efficiency

A firm's business strategy that is heavily focused on innovation is commonly classified as a prospector strategy. In contrast, a business strategy that is focused on efficiency-oriented activities is classified as a defender strategy (Habib dan Hasan, 2021; Navissi *et al.*, 2017; Chen dan Jeremias, 2014). Prospectors constantly seek new marketing strategies and develop new products through research and development. Moreover, prospectors tend to respond more quickly to projects that promote innovation. They are willing to take on risky projects and thus more likely to experience rapid growth, greater corporate complexity, a tendency to modify internal controls more frequently, and volatility of earnings (Bentley *et al.*, 2017). However, excessive investments may result in over-investment that produces negative NPVs (Navissi *et al.*, 2017). Firm performance tends to fluctuate sharply, making it difficult to predict future performance based on historical information (Chen *et al.*, 2017).

Conversely, Defenders emphasize production and distribution efficiency by avoiding investment in irrelevant technologies and always looking for ways to reduce production and distribution costs. This tendency reduces the company's intention to invest in projects that require large amounts of resources even though they have the potential to generate a positive NPV. As a result, the investment level will be lower than prospectors (Navissi *et al.*, 2017). Moreover, defenders tend to focus on strengthening technical and administrative problems with the existing technology (Navissi *et al.*, 2017), and improving product prices, services, and quality (Chen *et al.*, 2017) which results in a gradual and stable growth pattern of the company (Bentley *et al.*, 2017). In addition, companies with a defender strategy tend to have stronger internal controls than prospectors (Bentley *et al.*, 2017) as well as stricter investment rules to minimize high-risk decision-making. These tendencies will lead to under-investment (Navissi *et al.*, 2017).

Based on the preceding discussion, the relationship between business strategy and investment efficiency is stated as follows:

H1: Business strategy affects investment efficiency

Managerial Ability and Investment Efficiency.

Managers play an important role in shaping the future of the company. The company's success is the result of the manager's ability to carry out operational activities efficiently and effectively, and give added value to the company. A manager must have good managerial skills to ensure the success of the company (Yung and Chen, 2018). Upper Echelon Theory developed by Hambrick & Mason (1984) suggests that top managers' decisions and strategic choices are influenced by the personal characteristics and special skills of the managers. Huang (2013) describes executive leaders as powerful actors because they play an important role in determining and executing key corporate decisions such as funding, acquisitions, vertical and horizontal integration, and CSR practices. The ability of managers to make business decisions that bring companies to a brighter future is defined as managerial ability (Huang & Sun, 2017).

Upper echelon theory also suggests that the personal characteristics of managers are reflected through cognitive abilities, values, and basic knowledge when making strategic decisions which ultimately form managerial ability and reputation. Managers with good managerial abilities and reputations are capable to select profitable projects and prevent overinvestment because they have adequate and relevant information about the project to be selected (Lai dan Liu, 2018). Thus, firms with higher managerial abilities are expected to exhibit higher investment efficiency.

Based on the preceding discussion, the relationship between managerial ability and investment efficiency is stated as follows:

H2: Managerial ability is positively associated with investment efficiency.

Multiple Large Shareholders and Investment Efficiency

Agency theory suggests that information asymmetry can be mitigated by establishing an effective external control system (Jensen & Meckling, 1976). One control mechanism is the existence of large shareholders. Some firms may have multiple large investors who possess at least 3% of total equity (Ibrahim et al., 2019). Multiple large shareholdings are expected to be more effective in carrying out the monitoring function relative to a single large institutional investor (Jiang et al., 2018). This is because multiple large shareholders have a greater financial interest which is largely affected by the quality of investment decisions (Jiang *et al.*, 2018). Moreover, the existence of multiple large shareholders reduces information asymmetry and agency problems (Maury & Pajuste, 2005). Jiang *et al.*, (2018) argued that multiple large shareholders reduce the risk-taking behavior of managers when making investment decisions. They found that companies with multiple large shareholders exhibit higher investment efficiency. Thus, companies with multiple large shareholders are more likely to make better decisions on various investment alternatives which increases investment efficiencies.

Based on the preceding discussion, the relationship between multiple large shareholders and investment efficiency is stated as follows:

H3: Multiple large shareholders are positively associated with investment efficiency.

Earnings Management and Investment Efficiency

Accounting discretion opens up opportunities for managers to choose inappropriate accounting policies to increase reported earnings. This is commonly called earnings management. Earnings management is a deliberate action to intervene in the financial reporting process through accounting policies that increase earnings to meet personal objectives (Beneish, 2001). Managers deliberately use accounting discretion to mislead users of financial statements. Earnings management occurs due to information asymmetry between managers and shareholders. Shareholders have no adequate relevant information to monitor the decisions and policies of companies that allows managers to intervene in the process of financial reporting. As a result, investors fail to assess the true prospects of a firm (Butar Butar, 2015).

Previous studies reported that quality financial reports increase investment efficiency (Biddle et al., 2009; Butar Butar, 2015). Good quality financial reports improve the ability of shareholders to assess the investment decisions of managers thereby mitigating the occurrence of earnings management. High-quality financial information reduces information asymmetry and has a positive impact on investment efficiency (Biddle et al., 2009). Linhares et al. (2018) investigated the effect of financial report quality as a proxy for earnings management on investment efficiency and found that firms with higher earnings management exhibit lower investment efficiency.

Based on the preceding discussion, the relationship between earnings management and investment efficiency is stated as follows:

H4: Earnings management is negatively associated with investment efficiency

3. RESEARCH METHOD

Sample

The sample was selected from Indonesian public firms that belong to non-financial sectors and had financial statements available from data sources from 2019-2021. Table 1 presents the sample selection in more detail. The final observation available for further analysis is 1626 observations.

Table 1. Sample Selection

	Details	2019	2020	2021	Total
1	Companies listed on IDX	667	714	768	2149
2	Firms' financial statements are not available	(35)	(63)	(115)	(213)
3	Firms belong to financial sectors	(100)	(104)	(106)	(310)
	Total Sample	532	547	547	1626

Variable Measurements

Investment Efficiency

Investment efficiency is derived from a regression model that links a company's growth rate with total investment. Residual from the model is the proxy for investment efficiency.

Specifically, negative (positive) residual value indicates under (over) investment. Following Biddle et al. (2009), a regression model to measure investment efficiency is stated below:

$$INVEST_{i,t} = \beta_0 + \beta_1 Sales\ Growth_{i,t-1} + \varepsilon_{i,t}$$

Where *INVEST* is the difference between the growth in tangible and intangible assets from t-1 to t divided by a prior year's total assets and *Sales Growth* is the percentage change in sales from t-2 to t-1. For ease of interpretation residuals from the model are multiplied by -1. Thus, the greater value of the residuals suggests a more efficient investment.

Business Strategy

Business strategy is a dummy variable that takes 1 if a firm adopts the prospector strategy and 0 if a firm adopts the defender strategy. Firms are classified into prospector and defender strategies by using a procedure proposed by Navissi *et al.* (2017).

Managerial Ability

Managerial reputation is a proxy for managerial ability which is defined as the reputation of the Board of Directors among the business community. Adopting Chemmanur et al. (2011), the managerial ability is the percentage of board members who have past experiences as top managers. Top managers include presidents, vice presidents, and directors of companies listed on the Indonesia Stock Exchange.

Multiple Large Shareholders

Multiple large shareholders are defined as a group of shareholders who possess at least 10% of the total share capital (Maury dan Pajuste, 2005). This variable is a dummy variable that takes 1 if a company has two or more major shareholders with at least 10% ownership and 0 otherwise.

Earnings Management

Earnings management is proxied as discretionary accruals which are estimated from the modified Jones Model. Note that the discretionary accruals are transformed into absolute value to prevent negative and positive discretionary accruals from canceling each other out. Thus, a higher absolute value of discretionary accruals indicates higher earnings management.

Debt-to-Equity-Ratio

This ratio reflects the source of capital used by the company to fund its operations. Previous findings suggest that debt to equity ratio significantly affects investment efficiency (Siddique and Rasheed, 2023; Jiang *et al.*, 2018). The formula for calculating debt to equity is as follows.

$$DER = \frac{Total\ liability}{Total\ equity}$$

Firm Size

Firm size is measured by the natural logarithm of total assets. Previous studies have shown that the greater the assets owned by a company, the higher the investment efficiency (Navissi et al., 2017).

Profitability

Profitability measures a company's ability to earn profits relative to its assets. Previous research has shown that profitability has a significant relationship with investment efficiency (Jiang et al., 2018). Return on assets is measured as follows:

$$ROA = \frac{\text{Net income before tax}}{\text{Total assets}}$$

Operating Cash Flow

Operating cash flow reflects the availability of cash to fund investments. Previous studies have shown that operating cash flow (CFO) has a significant effect on investment efficiency (Jiang et al., 2018; Navissi et al., 2017).

$$CFO = \frac{\text{Company's operating cash flow}}{\text{Sales}}$$

Regression Model

Regression analysis is used to examine the effect of business strategy, managerial ability, multiple large shareholders, and earnings management on investment efficiency with leverage (DER), firm size (SIZE), profitability (ROA), and operating cash flow (CFO) as control variables. Following is the regression model to test the hypotheses.

$$E_{i,t} = \beta_0 + \beta_1 BS_{i,t} + \beta_2 ABLE_{i,t} + \beta_3 MLS_{i,t} + \beta_4 DACC_{i,t} + \beta_5 DER_{i,t} + \beta_6 SIZE_{i,t} + \beta_7 ROA_{i,t} + \beta_8 CFO_{i,t} + \varepsilon$$

where EFF_INV= investment efficiency; BS= business strategy; ABLE= managerial ability; MLS= multiple large shareholders; DACC= earnings management; DER= debt to equity ratio; SIZE= firm size; ROA= return on asset; CFO= operating cash flow.

4. RESULTS AND DISCUSSION

Descriptive Statistics

This section will focus on descriptive statistics. Table 2 presents a summary of the maximum, minimum, mean, and standard deviation of each variable. The initial data of this study were 1626 observations but as many as 483 observations were omitted to satisfy the assumptions underlying the regression analysis. Table 2 presents descriptive statistics for all variables.

The mean for investment efficiency (EFF_INV) is -0.025 with a standard deviation of 0.018, suggesting that the average investment made by companies tends to be less efficient. The mean for business strategy (BS) is 0.570 suggesting that 57% of observations adopt a prospector strategy. The mean for managerial ability (ABLE) is 0.797 suggesting that 79.7% of the top managers have previous experience as top managers. The mean for multiple large shareholders (MLS) is 0.540 suggesting that 54% of firm samples have two or more large shareholders. The mean for earning management (DACC) is 0.764 suggesting that 76,4% of assets were involved in earning management activities. As for control variables, descriptive statistics suggest that firm samples have more equity than liabilities, belong to large firms, are less profitable, and have a positive operating cash flow.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev.
EFF_INV	1143	-0.088	-0.0007	-0.025	0.018
BS	1143	0.000	1.000	0.570	0.496
ABLE	1143	0.000	1.000	0.797	0.224
MLS	1143	0.000	1.000	0.540	0.499
DACC	1143	0.070	2.280	0.764	0.387
DER	1143	0.016	3.856	0.960	0.808
SIZE	1143	24.462	32.820	28.509	1.696
ROA	1143	-0.370	0.500	0.041	0.089
CFO	1143	-3.195	2.134	0.072	0.325

Test of Hypothesis

This study uses multiple linear regression analysis techniques to examine the effect of business strategy, managerial ability, multiple shareholders, and earnings management on investment efficiency. Table 3 presents the regression results.

Table 3. Regression Results

Variables	Prediction	Coefficients	T stat	P-value
BS	-	-0,002	-2,008	0,045
ABLE	-	-0,001	-0,338	0,735
MLS	-	-0,001	-0,814	0,416
DACC	+	-0,001	-0,985	0,325
DER	-	-0,002	-2,223	0,026
SIZE	+	0,001	4,123	0,000
ROA	+	0,016	2,360	0,018
CFO	-	-0,007	-3,906	0,000
F = 5,977				
Adj. R ² = 0,034				

The p-value and regression coefficients for business strategy (BS) are 0.045 and -0.002 respectively, indicating the negative effect of business strategy on investment efficiency. Thus, hypothesis one is statistically supported. Note that business strategy is a dummy variable. A negative coefficient suggests that firms with a prospector strategy exhibit less investment efficiency. However, the p-value and regression coefficients for managerial ability (ABLE) are

0.735 and -0.001 respectively, indicating that managerial ability does not affect investment efficiency. Thus, hypothesis two is not statistically supported.

The p-value and regression coefficients for multiple shareholder variables (MLS) are 0.416 and -0.001 respectively, indicating that multiple shareholders do not affect investment efficiency. Thus, hypothesis three is not statistically supported. The p-value and regression coefficient for earnings management (DACC) are 0.325 and -0.001 respectively. The result suggests that earnings management does not affect investment efficiency. Thus, hypothesis four is not statistically supported.

As for control variables, the results show that leverage (DER), firm size (SIZE), profitability (ROA), and operating cash flow to sales (CFO) are associated with investment efficiency. Specifically, DER is negatively associated with investment efficiency, SIZE is positively associated with investment efficiency, ROA is positively associated with investment efficiency, and CFO is negatively associated with investment efficiency.

Discussion

As described before, business strategy can be divided into four groups: defender, prospector, analyzer, and reactor (Miles *et al.*, 1978). This classification is based on how businesses react to its three key issues, entrepreneurial, engineering, and administrative issues (Miles *et al.*, 1978). A business strategy is a management decision on how the company will compete in and survive in the market (Chen *et al.*, 2017; Navissi *et al.*, 2017; Bentley *et al.*, 2017). In this study, the analysis is focused on the defender and prospector strategy.

Results in Table 3 demonstrate that business strategy is negatively associated with investment efficiency. The finding suggests that firms with a prospector strategy are less efficient in allocating their resources and have support from previous empirical findings. Prospectors are more likely to have going concern opinions and material weakness opinions from auditors (Chen, Eshleman, and Soileau, 2017), prospector business strategies have lower quality internal control (Bentley-Goode, Newton, and Thompson, 2017), and the tendency for managerial mismanagement that causes unethical business behavior (Maniora, 2018). Meanwhile, prospectors tend to over-invest in their employees (Habib and Hasan (2021).

Managerial Ability and Investment Efficiency

Managerial ability refers to the capability of a manager to make efficient business decisions and is often associated with manager characteristics such as level of intelligence, education, and work experience. Managers with good managerial skills can convince investors about the feasibility of a project and reduce agency problems. These managers are able to select profitable projects and prevent overinvestment because they have adequate and relevant information about the projects to be selected (Lai and Liu, 2018). Managers with good managerial skills have the ability to attract investors to provide additional capital, thereby reducing the problem of underinvestment. However, the findings do not support the prediction.

Note that managerial reputation is used as a proxy for managerial ability which is measured as the percentage of board directors who have past experiences as top managers. The insignificant result may result from the inappropriate use of the proxy. Directors who have worked in various companies as top managers do not necessarily have good managerial skills. A manager's reputation is formed from market perceptions of the competence, charisma, integrity, and reliability of managers (Karuna, 2011). Ali & Zhang (2015) stated that managers

pay attention to market perceptions of them because it can affect the long-term benefits to be received such as higher managerial compensation in the future, reappointment, and managerial autonomy in decision-making. Thus, a reputation is only a perception of managerial ability but does not necessarily reflect actual managerial ability.

The Effect of Multiple Large Shareholders on Investment Efficiency

Companies with multiple large shareholders are more likely to make better business decisions. Large shareholders are expected to perform monitoring functions more effectively to minimize information asymmetry, making the quality of the decision-making process increase (Jiang *et al.*, 2018). However, regression analysis shows that multiple large shareholders are not associated with investment efficiency. The rejection of the hypothesis suggests that large shareholders failed to perform its monitoring function effectively. The finding is not consistent with evidence documented in Jiang *et al.*, (2018).

Jiang *et al.*, (2018) used China public firms to examine the effect of multiple large shareholders on investment efficiency. Using 1640 companies listed on the Shenzhen stock market, they compared companies with multiple large shareholders to those with only one large shareholder. The results show that the existence and strength of MLS are positively related to investment efficiency. The additional test found that the role of MLS in improving governance is primarily through 'voice'. In particular, MLS plays an important role in reducing over-investment and improving future investment performance.

The Effect of Earnings Management on Investment Efficiency

The result shows that earnings management does not affect the company's investment efficiency. Earnings management is a deliberate action by managers to intervene in the financial reporting process through accounting policies to meet personal targets. The discretion that managers have in choosing accounting policies has the potential to mislead users of financial statements. As a result, the quality of financial reports decreases because they do not reflect economic reality and investment efficiency decreases. The findings do not support the prediction. This can be caused by different earnings management motives. It has been widely discussed in the accounting literature that earnings management can be triggered by opportunistic personal motives as implied in agency theory but can also be used as a means of signaling based on signaling theory. If earnings management is used as a means of signaling, earnings management can improve the quality of financial reporting. Further research is needed to determine the dominant motives of earnings management in Indonesia.

The finding is not consistent with previous studies. Elaoud and Jarboui (2017) found that the quality of financial report information positively affects investment efficiency. However, Handayani *et al.* (2016) found that the quality of financial reports has a negative effect on underinvestment.

5. CONCLUSION AND SUGGESTIONS

Optimal investment occurs when the allocation of resources to various investment projects does not result in over-investment or under-investment. This ideal situation is only possible if the information asymmetry between the various interested parties can be eliminated. But situations where there is no information asymmetry are difficult to create. Information

asymmetry can cause over-investment and under-investment and bring difficulties to shareholders in making investment decisions.

One factor that can affect investment efficiency is the company's business strategy. Companies with a defender strategy are more innovation-oriented. Companies tend to look for new technologies to develop products and tend to be more willing to take risks in investing. Consequently, firms tend to over-invest in projects that are unprofitable or generate negative NPV resulting in overinvestment. In contrast, firms with a prospective strategy are more efficiency-oriented and tend to be more careful in making investment decisions. However, this tendency can lead to a lack of investment. Another factor that might affect investment efficiency is earnings management. Good quality financial reports improve the ability of shareholders to assess the investment decisions of managers thereby mitigating the occurrence of earnings management. High-quality financial information reduces information asymmetry and has a positive impact on investment efficiency.

Managerial ability and multiple large shareholdings are also believed to affect investment efficiency. Managers play an important role in making economic decisions related to investment choices. According to upper-echelon theory, the personal characteristics of top managers such as cognitive abilities, values, and basic knowledge of these individuals influence the direction of the company's strategic policies, including investment decisions. Managers with good managerial skills can eliminate distortions in investment decision-making so that over-investment and under-investment can be reduced. Multiple large shareholdings are expected to be more effective in carrying out the monitoring function and reducing the risk-taking behavior of managers when making investment decisions. They found that companies with many large shareholders exhibit higher investment efficiency. Thus, companies with multiple large shareholders are more likely to make better decisions on various investment alternatives and increase investment efficiencies.

This study examines the effect of business strategy, managerial ability, multiple large shareholders, and earnings management on investment efficiency by taking a sample of companies listed on the Indonesia Stock Exchange. The results show that business strategy is significantly associated with investment efficiency. However, managerial skills, large multiple shareholders, and earnings management have no effect on investment efficiency. Further research may consider using a different method to measure earnings management and business strategy. In addition, further research may also consider the historical experience of managerial parties in accounting as a proxy for managerial ability.

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