FAMILY OWNERSHIP MATTERS FOR INVESTORS IN INDONESIA’S MINING COMPANIES

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ABSTRACT

This study aims to determine the effect of family ownership, financial performance, return on assets, return on equity, liquidity, and capital structure on market value. Secondary data was obtained based on annual reports and financial statements in mining companies listed on the IDX in 2016-2020 through Indonesia Stock Exchange (IDX). Data were obtained from the Bloomberg database. The method used to collect samples is purposive and consists of 35 mining companies in Indonesia. The panel data method was considered appropriate in this study, and multiple regression was used to examine the data. The results show that total assets and return on assets positively affect market value. The ratio of return on equity and liquidity in financial performance and capital structure has no significant effect on market value. The existence of family ownership is favourable for a firm’s market value. The sample in this study was limited to the manufacturing sector. This industry was chosen because its market value is quite volatile and family ownership is quite large. On average there are 40% of the total observations are family-owned companies. The interesting findings in this study are that family ownership does matter in gaining the investors’ attention.

Keywords: family ownership, firm size, Indonesia, market value, profitability.

INTRODUCTION

The company has various values that affect its growth, including nominal, market, intrinsic, book, and liquidation. Market value can describe whether the company in its development has shown good performance or vice versa. Companies with good performance will become the target of investors to invest and result in an increase in the market value of the stock. Indonesia has the largest economic growth in Southeast Asia and is one of the emerging markets in the world as its Gross National Income (GNI) is at a moderate level (MSCI Inc., 2022); (Rahayu et al., 2021). Emerging market countries are countries with low to medium per capita income levels. Its growth accounts for almost a large percentage of the global population and world economy. In the future, Indonesia will become the locomotive of the global economy in the years to come. Blessed with abundant natural resources and increasingly independent of foreign funding, Indonesia is likely to be a key player in the future with moderate GDP growth per year. It will certainly give a positive signal to each company's stock market value in Indonesia so that it can attract investors.

The company has a market value related to the ownership structure. One of the ownership structures owned by each company is the ownership structure with a family ownership pattern. The pattern of family ownership carried out, especially in public companies, has become commonplace. Family ownership for some people is better able to produce the best performance, where the underlying thing is that companies with family ownership patterns can provide investment decisions (Deephouse & Jaskiewicz, 2013) both short-term investment and long-term investment with the maximum because the family has more specific knowledge that is stronger in building their company. In addition, family ownership can minimize principal-agent problems to align the interests of managers and shareholders (Halili et al., 2015). Managers can also be closely monitored in managing company assets because family ownership must maintain family wealth which is the company's strength. Family ownership can be interpreted as a controlling family with a percentage of equity compared to total equity to determine the proxy for family ownership. A family controlling a company can be seen from the relationship between individuals in the organizational structure, such as the CEO, chairman or vice-chairman, and managers who have the same family name by blood or marriage with the largest controlling shareholder. Quote (Amore et al., 2022) said that companies with family ownership patterns performed
very well systematically compared to non-family companies or not based on family ownership; the performance in question was specifically based on an economy where the company's economy continues to grow rapidly because the activities and control of the business are directly held by the family, especially in equity shares. During the COVID-19 pandemic, it is felt that companies with family ownership patterns are profitable because the business is still strengthened by family wealth and does not reduce the company's market value.

The existence of investors has a big influence on the sustainability of a large company which can improve the company's financial performance. It will be seen in good or bad condition in an annual report. In the report, the company tries to attract investors by showing that the company does not only generate profits but can maintain and increase profits and has profitable job prospects and promises (Thakur & Workman, 2016). It has the effect of increasing the value of the company. It is important because the company's high value will be followed by the prosperity of the shareholders (Rosada & Idayati, 2017). The rationale is that when more investors buy company shares, the share price will increase, and the company market value will also increase.

The market value indicates a high purchase price and is provided by the market so that you can choose the company's assets and shares (Henrique et al., 2018). (Bushee & Miller, 2012) said that every company has a provision in market value that is useful for determining the most likely selling price for each type of investor. One thing that can determine is that assets, both current, fixed, intangible, and long-term investments show how the company's assets are in each period. It makes managers strive to provide truly accurate information to the capital market regarding assets (Puspitha & Yasa, 2018). It can provide a positive response from investors that can accurately assess the price of shares issued in the market, and the information can be explained in detail. One example is how companies consider whether an intangible asset will be treated as an expense. Most companies will make it an expense. In contrast, the cost will make intangible assets an expense that decreases capital and directly impacts company results related to profits and taxes (Glova & Mrázková, 2018).

Assets usually have a component used as a reference in seeing the company's value, which is presented in the form of a ratio. The profitability ratio is often used, referring to the ROA (Return on Asset). In addition to ROA, profitability is also measured based on equity, namely the financial ratio ROE (Return on Equity). ROE is very common and a relatively good performance measure among traditional measures (Nakhaei & Hamid, 2013). The next ratio also considered important in measuring firm value is liquidity. The company's ability to meet short-term obligations requires the company to have cash or convert other current assets into cash—the relativity of current assets to current liabilities (Khidmat & Rehman, 2014).

The optimal combination of debt financing and cost of equity can suppress WACC (Weighted Average Cost of Capital) at the lowest level, thereby increasing the company value and market value to the maximum. The effect can indirectly influence capital structure decisions, changing risk and desired rate of return (Brigham & Daves, 2012). The capital structure theory shows that the WACC cost of equity can be expressed as a source of financing whose value is higher than the cost of debt and deposits. This theory reveals that increasing equity financing by issuing new equity will increase WACC (Rahman et al., 2018). Based on research (Budhathoki & Rai, 2020), An increase in the amount of equity capital (minimizing the debt ratio) can reduce WACC through efforts to increase public confidence and the ability to take risks in banks. Interest expense can reduce tax payments for companies and substantially reduce WACC. Rationally, the high use of financial leverage will lead to an increase in market value. An increase in the debt ratio will result in a decrease in the company’s market value.

LITERATURE REVIEW

Agency theory emphasizes problems that occur because of conflicts between agents and principals. Currently, agency problems are not only focused on agents and principals but have included conflicts between the interests of the majority and minority owners (Panda & Leepsa, 2017). The majority owner is the owner or shareholder with the highest voting rights (Song et al., 2015), thus providing many opportunities to make decisions that are very beneficial for themselves, even though this will limit the interests of minority owners. Shareholders with minority ownership ultimately experience difficulties voicing their interests and protecting the wealth that is their right (Armour et al., 2017). A family relationship in a family company will
cause conflict because of differences in views between the founders of the company as principals and the younger generation as agents in running a family company (Block, 2012). This agency problem always arises and is faced by the state with companies with the concept of family ownership.

Spence introduced the signal theory in 1973. Companies often use signal theory to provide signals to users of financial statements (Sharma et al., 2016); (Birjandi et al., 2015) by displaying the company’s financial performance each period, where the liquidity and profitability ratios are the most basic ratios that all investors can read. The company’s financial performance with wider disclosure will give a positive signal to stakeholders and shareholders (Vitezić et al., 2012) and be interpreted by potential investors (Revelli & Viviani, 2015); If the signal is good, it will attract many investors and increase the market value.

In stakeholder theory, the company will carry out operational activities to benefit employees, shareholders, creditors, consumers and the government (Brown & Forster, 2013). Companies must demonstrate accountability and responsibility broadly and not only to shareholders (Pless et al., 2012). Edward Freeman introduced stakeholder theory in 1984, which is useful in determining how stakeholders can contribute greatly to the presentation of the annual report (Torelli et al., 2020). Financial statements present a capital structure based on how stakeholders can provide returns to shareholders, pay debts, and refinance their business in different ways (Suto & Takehara, 2016). Achievement in the best performance of stakeholders will increase the company’s value.

Stewardship theory, introduced by Donaldson and Davis in 1989, explains that managers work for the common good. If these interests are not in line with the owner’s, the manager tries to follow the owner’s procedures without going against them (Aßländer et al., 2016). Stewardship theory in a family company has a good impact because family members will act as servants as the company’s controller; this makes them think more about continuing the company and developing closer relationships with other stakeholders and shareholders (Adendorff & Halkias, 2014). This family ownership must also consider what other shareholders want, such as getting dividends according to their expectations. It will support the stewards in successfully achieving the organization’s goals, namely increasing the company’s market value.

Market Value can be defined as the price of goods or securities indicated by a market offer, i.e. the price at which additional goods can be sold or purchased (Xia et al., 2016). The market value is determined by the last sale or the appraisal agency; the market value constantly fluctuates when there is hot news and will often change throughout the day. (Kanwar & Hall, 2017) defines that the prosperity of each shareholder is usually maximized by maximizing the increase in the company's capital market value above the value of the paid-up capital by shareholders. This increase in the company is commonly referred to as Market Value Added (MVA), as a total calculation of the company's performance originating from various investment results. MVA shows the total of all claims on the company’s capital and the addition of debt and equity market value (Ahmad et al., 2019).

Companies with family ownership patterns are recognized as companies that are sheltered in one family scope where the founders are family members either by blood or marriage ties, in their positions as directors, CEOs or others or owners who own at least five per cent of the company's equity. (Sener, 2014) defines that the largest shareholder must own more than twenty per cent of the voting rights for the company, proposed as family ownership. The use of the final percentage owned by the family as an assessment of its ownership. In family ownership of a company, ownership and management are important in reducing or eliminating agency problems, but minority shareholders can certainly be affected. Share ownership by managers is expected to prevent moral hazard; workers will try to work more productively for shareholders’ welfare and increase company value (Khanifah et al., 2020). Research by (Sienatra et al., 2015) confirms that share ownership by managers in companies will increase market capitalization. The stock’s market value can make the value of the company formed to provide investment opportunities. This space becomes a positive signal for future growth so that the increase in stock prices becomes a proxy for company value.

One component of financial performance is assets, where assets are part of the company's assessment of increasing market value. This asset becomes the company's wealth in its operational activities (Owolabi & Obida, 2012). However (Rahman & Hossain, 2020) said that the presentation of this value was deemed to be less reflective of the true value of fixed assets. Hence, it was necessary to revalue fixed assets. The next
component of non-current assets is intangible assets. These assets do not have a physical form and become future economic benefits for the company due to past transactions (Okoye et al., 2019). The last component of non-current assets is a long-term investment made in the past and present and is useful for the growth of the company's wealth. At the end of the period, this total asset measures how big or small a company's financial statements are (Dahmen & Rodríguez, 2014).

Unlike the case with assets, some of the information in financial performance measures the company's finances in a period, one of which is ROA. As a proxy for profitability ratios, ROA explains the company's ability to generate profits from sales, total assets, and own capital. An increase in the profit ratio results in better management (Angelia & Toni, 2020). In addition, ROE also represents a ratio in financial performance that measures the ratio of net income to book value of equity (Mohammad Alipour & Pejman, 2015). Liquidity ratios and performance are effective assessments of the company's sustainability in achieving increased profitability, reducing input requirements, and achieving strategic advantages in fluctuating economic situations (Veronika et al., 2014).

The capital structure forms the basis for developing a theoretical framework with various influencing factors, including possible bankruptcy costs, agency costs, and even packing orders (Roshiaza & Azura, 2014) states that the existence of bankruptcy costs, financial difficulties and favourable tax treatment through interest payments will lead to an optimal capital structure thinking and optimizing firm value or minimizing the total cost of capital. The appropriate cost of capital for all decisions is the WACC components. The cost of capital for investors is divided into equity costs, in this case, owners or shareholders who invest in equity, and debt costs are creditors (banks and bondholders) who invest in debt capital (Lehutová et al., 2013). WACC ratio is used to make company decisions regarding debt or equity to purchase new assets (Goldberg & Pratts, 2017); (Berry et al., 2014). The implementation of WACC is in capitalizing net cash flows in one year, but it can also assess the control or interest position of minority shareholders (Pratt & Grabowski, 2014).

**Hypothesis Development**

The results of previous relevant research reveal the influence of family ownership on market value because it will make the company have good performance and minimize conflicts between agents and principals. According to research (Juwita, 2019), family ownership positively affects firm value. Managers of companies under family control are considered more responsible for stakeholders' interests in optimizing profits and public trust. It will indirectly increase the company's value and affect the market value. Similar to research by (Anderson et al., 2012), characteristics in family control and ownership show a positive relationship in sales activity compared to non-family firms. However (Malelak et al., 2020) stated that family ownership does not significantly affect firm value.

H₁: Family ownership affects market value.

In general, the management carried out by the company's management is related to efforts to improve shareholders' welfare by maximizing share prices. One of the financial performance components is total assets (Shygun et al., 2020). When there are more current assets in a company, the company prefers to use debt in fulfilling its financing activities. Still, if there are more non-current assets, they will use their capital to fulfill the company's financing activities. Companies with large total asset ownership will find it easier to obtain loans because they are collateral to increase the financing of operational activities (Alipour et al., 2015). Research by (Nyamasege et al., 2014) and (Setiadiharma & Machali, 2017) reveal the influence of asset structure in a positive and significant direction on firm value. The company provides good information or signals to investors. Fixed assets are also stated to positively affect the company value because when the company goes bankrupt, these assets are less risky for investors (Listiani & Supramono, 2020).

Total assets can be seen in financial performance and can be seen based on the ratios presented. The ratio that potential investors most easily understand is the ratio of profitability and liquidity. As explained, when profitability is high, it shows that the prospect of a company is quite good. It indicates that the company managed to record an increase in profits, the company has good performance and can increase its stock price. This statement is consistent with (Terpstra & Verbeeten, 2014); (Husna & Satria, 2019), which state that the profitability ratios using ROA measurement significantly affect firm value to market value.
Meanwhile, (Ichsan et al., 2021) state that ROA affects financial performance negatively but not significantly. Research (Rosada & Idayati, 2017) found that profitability significantly affects firm value as measured by the ROE proxy. The company's value can be seen from its liquidity and the company's ability to meet its short-term obligations. Research by (Massie et al., 2018) and (Almajali et al., 2012) found that liquidity positively influences firm value.

H₃ₐ: Return on assets affects market value.
H₃ₐ: Return on equity affects market value.

The trade-off theory emphasizes that the bank's interest expense will also increase by increasing the use of debt. It will have difficulty fulfilling its financial obligations to the bank on time. It will affect the rate of return on capital and increase the cost of bankruptcy, which causes WACC to increase and affect the decline in the company's market value. The WACC cost of equity is presented concerning the rate of return demanded by the owner or shareholder through exposure observation (Bojňanský et al., 2012). Meanwhile, the WACC cost of debt is an important capital component because it can see data on capital budgeting, performance measurement and firm value (Brealey et al., 2016). Research by (Bozec et al., 2014) states that companies with higher WACC should have lower scores. A slightly higher WACC is unlikely to jeopardize a healthy company managed by an entrepreneur who implements and follows a sound long-term strategy. This ratio is considered comprehensive because it calculates the average of all sources of capital (Asad et al., 2019).

So, in this case, a high stock price also makes the company value high and increases market confidence in the company's current and future performance. Research conducted by (Cao et al., 2015) shows that the cost of equity improves the company's reputation with information asymmetry about the quality of the company and (Aldarneen et al., 2015) also state a positive effect on the cost of debt by considering the risk faced.

H₃ₐ: WACC cost of equity affects market value.
H₃ₐ: WACC cost of debt affects market value.

**METHODOLOGY**

Table 1. Sample presentation summary

<table>
<thead>
<tr>
<th>Sample criteria</th>
<th>Number of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total mining company</td>
<td>41</td>
</tr>
<tr>
<td>Companies registered in 2016-2020</td>
<td>(6)</td>
</tr>
<tr>
<td>Companies Number as population</td>
<td>35</td>
</tr>
<tr>
<td>Total period (in years)</td>
<td>5</td>
</tr>
<tr>
<td>The number of samples used in the study (35 x 5)</td>
<td>175</td>
</tr>
</tbody>
</table>

Table 2. Definitions

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Definitions</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market value</td>
<td>A measurement used to describe the value of an asset or company in financial markets (Christensen &amp; Nikolaev, 2013)</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>Family ownership</td>
<td>Percentage of general equity owned by the family (Anderson et al., 2012)</td>
<td>Annual report</td>
</tr>
<tr>
<td>Total assets</td>
<td>All assets or funds allocated by the company into an asset and support operational activities (Kadim &amp; Nardi, 2018)</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>Return on assets</td>
<td>Measuring the company's efficiency in managing investments/assets and using them to generate profits (Harelimana, 2017)</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>Return on equity</td>
<td>Assess the company's ability to manage capital effectively and measure profitability through owner or shareholder investment (Heikal et al., 2014)</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>Liquidity</td>
<td>Describes the company's ability to meet all obligations as they fall due, assuming that total current assets exceed the amount payable (Chasanah &amp; Sucipto, 2019)</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>WACC cost of equity</td>
<td>The return that shareholders expect as compensation for the risk taken when investing their capital (Maaloul, 2018)</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>WACC cost of debt</td>
<td>A measure of the lender's calculated risk to the company or the expected return (Jiraporn et al., 2013)</td>
<td>Bloomberg</td>
</tr>
</tbody>
</table>

This study uses a quantitative approach. The panel data method was considered appropriate in this study because it involved time series and cross-sectional data. Gretl Statistical Software is used to analyze the data. This statistical process involves collecting secondary data, testing hypotheses, and identifying cause-
and-effect relationships. The sample of this study uses mining companies, with several samples that meet the criteria of 175 from 2016 to 2020 (can be seen in Table 1). The secondary data used are financial and annual reports accessed through the Indonesia Stock Exchange (IDX) on the official website www.idx.co.id to obtain information. The dependent variable used in this study is market value. The independent variable uses three variables: family ownership, financial performance (covering ROA and ROE) and cost of capital (WACC cost of equity and WACC cost of debt). The control variables used are Firm Size and Liquidity. Variable measurements are summarized in the presentation of Table 2.

This study examines whether market value influences family ownership and the capital structure’s financial performance. A regression model can be presented as follows:

Model 1 is used to answer hypotheses 1 and 2

\[
MV_t = \alpha_0 + \beta_1 \text{FO}_t + \beta_2 \text{ROA}_t + \beta_3 \text{ROE}_t + \beta_4 \text{WACC}_t + \beta_5 \text{Liq}_t + \beta_6 \text{TotAs}_t + \epsilon_t
\]

Model 2 is used to answer hypothesis 3

\[
MV_t = \alpha_0 + \beta_1 \text{FO}_t + \beta_2 \text{ROA}_t + \beta_3 \text{ROE}_t + \beta_4 \text{WACE}_t + \beta_5 \text{WACD}_t + \beta_6 \text{Liq}_t + \beta_7 \text{TotAs}_t + \epsilon_t
\]

Models 3 and 4 are used as additional analyzes to explain the role of family ownership.

Model 3

\[
MV_t = \alpha_0 + \beta_1 \text{FO}_t + \beta_2 \text{ROA}_t + \beta_3 \text{ROE}_t + \beta_4 \text{WACC}_t + \beta_5 \text{ROA}_t + \beta_6 \text{Liq}_t + \beta_7 \text{TotAs}_t + \epsilon_t
\]

Model 4

\[
MV_t = \alpha_0 + \beta_1 \text{FO}_t + \beta_2 \text{ROA}_t + \beta_3 \text{ROE}_t + \beta_4 \text{WACC}_t + \beta_5 \text{ROA}_t \times \text{TotAs}_t + \beta_6 \text{Liq}_t + \beta_7 \text{TotAs}_t + \epsilon_t
\]

Information:

- MV\textsubscript{t} = Market value for firm \textit{i} in year \textit{t};
- FO\textsubscript{t} = Family ownership for company \textit{i} in year \textit{t};
- TotAs\textsubscript{t} = Total assets for company \textit{i} in year \textit{t};
- ROA\textsubscript{t} = Return on assets for company \textit{i} in year \textit{t};
- ROE\textsubscript{t} = Return on equity for company \textit{i} in year \textit{t};
- Liq\textsubscript{t} = Liquidity for company \textit{i} in year \textit{t};
- WACE\textsubscript{t} = WACC cost of equity for company \textit{i} in year \textit{t};
- WACD\textsubscript{t} = WACC cost of debt for company \textit{i} in year \textit{t};
- \epsilon\textsubscript{t} = Residual

each \textit{i} and \textit{t} denotes the firm and period.

**ANALYSIS AND DISCUSSION**

**Analysis**

The important thing in assessing panel data is determining the estimation model. In OLS, the assessment of the superior regression model is carried out four times by obtaining an F-test for choosing a good model between pooled, fixed panel and random effects, Hausman test as verification of whether the appropriate one is a fixed panel effect or random panel effect (Hatane et al., 2019). So the results can be presented in tables 5 and 6. If the result is a random effect, the classical assumptions can be ignored. Table 5 shows that the results of the panel model test are random effects.

The mining industry is known to have profitability (ROA and ROE) and liquidity which is volatile and varies widely between companies (the diversity is very large). The family ownership variable is measured using a dummy variable; the mean value is 0.4, indicating that 40% of mining companies in Indonesia are family-owned companies.

Table 4 explains the relationship between variables, but the relationship is not strong (correlation value < 0.7).
Table 3. Descriptive statistic

<table>
<thead>
<tr>
<th>Variables</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO (Dummy variable)</td>
<td>0.000</td>
<td>1.000</td>
<td>0.400</td>
<td>0.491</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.553</td>
<td>0.605</td>
<td>0.058</td>
<td>12.717</td>
</tr>
<tr>
<td>ROE</td>
<td>-2.896</td>
<td>1.304</td>
<td>0.057</td>
<td>37.868</td>
</tr>
<tr>
<td>Liq</td>
<td>0.110</td>
<td>87.160</td>
<td>2.529</td>
<td>9.142</td>
</tr>
<tr>
<td>TotA</td>
<td>7.441</td>
<td>11.010</td>
<td>9.746</td>
<td>0.728</td>
</tr>
<tr>
<td>WACC</td>
<td>-0.110</td>
<td>0.198</td>
<td>0.076</td>
<td>0.039</td>
</tr>
<tr>
<td>WACE</td>
<td>-0.110</td>
<td>0.284</td>
<td>0.103</td>
<td>0.054</td>
</tr>
<tr>
<td>WACD</td>
<td>0.001</td>
<td>0.113</td>
<td>0.029</td>
<td>0.017</td>
</tr>
<tr>
<td>Market Value</td>
<td>0.003</td>
<td>1.528</td>
<td>0.148</td>
<td>0.291</td>
</tr>
</tbody>
</table>

Table 4. Correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO (1)</td>
<td>1</td>
<td>0.4078***</td>
<td>0.1828**</td>
<td>0.1136*</td>
<td>0.012</td>
<td>-0.0675</td>
<td>-0.0474</td>
<td>0.2652***</td>
</tr>
<tr>
<td>ROA (2)</td>
<td>1</td>
<td>0.4702***</td>
<td>0.1499**</td>
<td>-0.0376</td>
<td>-0.1219</td>
<td>0.0868</td>
<td>0.2293***</td>
<td></td>
</tr>
<tr>
<td>ROE (3)</td>
<td>1</td>
<td>0.0978</td>
<td>0.0760</td>
<td>0.0335</td>
<td>-0.4219***</td>
<td>0.2177***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WACC (4)</td>
<td>1</td>
<td>0.0738***</td>
<td>0.0079</td>
<td>-0.2256***</td>
<td>0.2331***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WACE (5)</td>
<td>1</td>
<td>0.1225</td>
<td>-0.2262***</td>
<td>0.3240***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WACD (6)</td>
<td>1</td>
<td>-0.0473</td>
<td>0.2073***</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Liq (7)</td>
<td>1</td>
<td>-0.2492***</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>TotA (8)</td>
<td>1</td>
<td></td>
<td></td>
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Table 5. Panel diagnostic test

<table>
<thead>
<tr>
<th>Items</th>
<th>P-Values</th>
<th>Panel Diagnostic Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Fixed Effect Estimator</td>
<td>1.26E-05</td>
<td>1.24E-04</td>
</tr>
<tr>
<td>Random Effect Estimator</td>
<td>3.06E-06</td>
<td>8.11E-05</td>
</tr>
<tr>
<td>Hausman test</td>
<td>0.7096</td>
<td>0.5598</td>
</tr>
</tbody>
</table>

Hostman test results in Table 5 show that models 1-4 contain a random panel effect (p-value > 10%).

Discussion

Table 6 shows the mixed results for each model. The ROA variable is quite consistent in increasing firm value, as evidenced in models 1, 2, and 4. However, ROE cannot affect firm value. Likewise, WACC does not have a significant effect on market value. Model 2 corroborates the findings of the insignificant WACC on market value. The results in model 2 show that the cost of equity and cost of debt is not significant to the market value. Firm size as a control variable is significant in increasing market value (shown in models 1, 2, and 3).

An interesting finding is in the family ownership variable. Family ownership is an attraction for investors in mining companies, as evidenced in models 1 and 2. In model 3, family ownership in high profitability companies is getting stronger in increasing market value. The results of the FO with ROA interaction showed a significant positive value. Tests in model 4 further demonstrate the importance of family ownership in large mining companies. A significant positive value evidences this result in the interaction of FO with Firm Size.

The study results indicate that the H1 is accepted, which means that family ownership affects market value following the analysis. This study has shown that when the company applies a family ownership pattern concentrating on the founders, the performance and market value are superior to non-family ownership. It can be said that family ownership is an effective structure (Beuren et al., 2016). Family-owned firms are better prepared to face increasing political uncertainty (Amore & Minichilli, 2018), natural disasters (Salvato et al., 2020), which can reduce the cost of bank debt (D’Aurizio et al., 2015); (Lagaras & Tsoutsoura, 2015) and
able to improve performance (Minichilli et al., 2016). When family ownership makes policies to increase the company’s value, this attracts investors to invest so that it can also positively impact the value of the company’s shares.

Table 6. Regression results – random effects

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Const</td>
<td>-1.0921**</td>
<td>-1.1409***</td>
<td>-1.0978***</td>
<td>-0.1972</td>
</tr>
<tr>
<td></td>
<td>(0.0125)</td>
<td>(0.0096)</td>
<td>(0.0086)</td>
<td>(0.6946)</td>
</tr>
<tr>
<td>FO</td>
<td>0.1565*</td>
<td>0.1567*</td>
<td>0.1018</td>
<td>-3.0147***</td>
</tr>
<tr>
<td></td>
<td>(0.0809)</td>
<td>(0.0787)</td>
<td>(0.2446)</td>
<td>(0.0016)</td>
</tr>
<tr>
<td>ROA</td>
<td>0.0029***</td>
<td>0.0029***</td>
<td>-0.0003</td>
<td>0.0028***</td>
</tr>
<tr>
<td></td>
<td>(0.0013)</td>
<td>(0.0011)</td>
<td>(0.7922)</td>
<td>(0.0012)</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.0001</td>
<td>-0.0003</td>
<td>-8.94E-05</td>
<td>-0.0001</td>
</tr>
<tr>
<td></td>
<td>(0.6017)</td>
<td>(0.4491)</td>
<td>(0.7224)</td>
<td>(0.5665)</td>
</tr>
<tr>
<td>WACC</td>
<td>0.1116</td>
<td>0.1592</td>
<td>0.0710</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.6731)</td>
<td>(0.5232)</td>
<td>(0.7825)</td>
<td></td>
</tr>
<tr>
<td>WACE</td>
<td>-0.0772</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.6738)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WACD</td>
<td>0.4593</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.4070)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FO*ROA</td>
<td>0.0072***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5.13E-06)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FO*TotA</td>
<td></td>
<td></td>
<td></td>
<td>0.3214***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.0009)</td>
</tr>
<tr>
<td>Liq</td>
<td>0.0001</td>
<td>-0.0003</td>
<td>0.0002</td>
<td>-0.0003</td>
</tr>
<tr>
<td></td>
<td>(0.9201)</td>
<td>(0.8062)</td>
<td>(0.8718)</td>
<td>(0.7994)</td>
</tr>
<tr>
<td>TotA</td>
<td>0.1183***</td>
<td>0.1237***</td>
<td>0.1190***</td>
<td>0.0254</td>
</tr>
<tr>
<td></td>
<td>(0.0090)</td>
<td>(0.0068)</td>
<td>(0.0059)</td>
<td>(0.6261)</td>
</tr>
<tr>
<td>F-Test</td>
<td>26.5707</td>
<td>27.2991</td>
<td>50.1298</td>
<td>39.3084</td>
</tr>
<tr>
<td>P-Value F test</td>
<td>0.0002</td>
<td>0.0002</td>
<td>1.36E-09</td>
<td>1.71E-06</td>
</tr>
<tr>
<td>R-square</td>
<td>0.2451</td>
<td>0.2447</td>
<td>0.3088</td>
<td>0.2785</td>
</tr>
</tbody>
</table>

Notes: *p < 0.10 (weakly significant); **p < 0.05 (significant); ***p < 0.01 (highly significant)

H2a and H2b show different results. ROA have a significant effect on market value, and ROE has no significant effect on market value—similarly, data processing results for total assets and liquidity. The results of the study of total assets on market value showed significant positive results, which are also relevant to (Tsai et al., 2012) and (Appelbaum et al., 2017) that assets, one of which is an intangible asset, can represent the company’s profitability in the future to encourage growth opportunities in increasing the market value of a company. When the company’s performance grows, it means that the higher the ability of a company to utilize total assets that affect revenue. This statement is also supported by research (Ievdokymov et al., 2020); (Jaara & Elkotayni, 2016); (Soda et al., 2021); (Owusu & Alhassan, 2020). The company must be able to implement and manage strong financial policies and increase the volume of fixed asset investment so that later it will produce a financial performance that encourages potential investors so that it becomes an added value for the company. The significant effect of fixed assets on market value is stated in the research (Ramli et al., 2019); (Deari & Dinca, 2015); tangible assets become assets that are easily pledged and the asset turnover rate is higher in the joint-stock so that it will generate a lot of productivity which contributes to the market value.
The research results on ROA are relevant to (Wang & Shailer, 2017), (Obradovich & Gill, 2013), as well as (Wang et al., 2016), which state that there is a positive relationship between return on assets and market value. (Gulamhussein et al., 2012) also said that there is a positive relationship between managerial ownership, financial performance using ROA and market value (Tobin’s Q) (Minichilli et al., 2015) conducted a study on the entire population of family and non-family companies in Italian regional industrial companies that were publicly listed during the period 2002-2012, where this study found that financial performance with family ownership patterns was significantly and consistently better amid the economic crisis, performance. One of them is using ROA to produce much better performance in dealing with external hazards so that it does not affect the market value of a company.

ROE, by the results of the study, states that it has no significant effect on market value; it is supported by (Karaca & Saviar, 2012) and (Habibniya & Dsouza, 2018), where this ROE variable as the company's fundamentals is not a strong choice for investors to invest in a company, where investors who do not like risky risk will be more careful in determining how to invest in a company even though it is known that the prospects for profit growth and investment can be better. Increase. It affects the market value of a company, which is likely to decrease its share price. ROE variable is part of the profitability ratio, but the liquidity ratio did not show significant results. This result also follows the research by (Tahu & Susilo, 2017), which found no significant effect on firm value. Liquidity is not very important for external parties in assessing a company so that this liquidity does not influence changes in the company's stock price. In addition, the results of this study also do not support the statement that cash flow information of a company is one of the main sources in assessing performance, both the ability to generate cash and its equivalent. In line with (Mahendra et al., 2012), (Timbuleng, et al., 2015), and (Fajaria & Isnallita, 2018) found that the liquidity ratio did not significantly affect a firm value.

The next independent variable is capital structure using WACC as research data. The results show that capital structure does not significantly affect market value, and H3 is rejected. These results are also consistent with the research of (Zeitun & Tian, 2014), which states that capital structure has a negative effect on market value; further research by (Sattar, 2015) states that WACC has a negative impact on firm value, so the company is expected to be able to maintain the cost of capital and increase the size of the company. This study indicates that investors do not respond to the cost of capital, both the cost of equity and the cost of debt. As also explained by (Frank & Shen, 2016) and (Xu et al., 2014) in research conducted on several companies, the cost of equity has a negative effect on the investment or investors of a company, research conducted by (Loncan & Caldeira, 2014); (Meng & Yin, 2019); (Tran, 2021) also gives the result that the cost of debt negatively affects the market value of a company so that it has an impact on the confidence of potential investors. The existence of a policy of debt and equity capital is said to increase the company's value by reducing the WACC to a certain level of debt. The company is declared a maximum capital structure if the WACC is minimal to maximize the value. So the company should be able to reduce the use of debt to the point where the weighted average cost of capital begins to increase, which will make the company value decrease (Adenugba et al., 2016).

CONCLUSIONS AND RECOMMENDATIONS

The research results indicate that the three independent variables provide different research results. Signal theory is used to show information about the quality of the company's performance to stakeholders or, in this case, investors. In addition, this theory reduces information asymmetry between related parties such as investors and management. The existence of differences in information between entities and stakeholders causes actions from the company by giving signals or signals to provide instructions to stakeholders in seeing the company's prospects. The signal given by the company is the performance that the organization has carried out to realize the wishes of stakeholders. The limitation of this study is that it only uses three independent variables, which have shortcomings in showing how market value can increase the value of a company. In addition, the research is still limited to using mining companies listed on the BEI. They are not representative of all companies, especially companies that apply a family ownership pattern.
REFERENCES


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