

FAMILY OWNERSHIP MATTERS FOR INVESTORS IN INDONESIA'S MINING COMPANIES

I Gusti Ayu Purnamawati¹, Gede Adi Yuniarta², Kadek Rai Suwena³,
Komang Krisna Heryanda⁴, Saarc Elyse Hatane⁵

^{1,2,3} Economics and Accounting Program, Faculty of Economics, Universitas Pendidikan Ganesha
Jl. Udayana No 11, Singaraja, INDONESIA

⁴ Management Program, Faculty of Economics, Universitas Pendidikan Ganesha
Jl. Udayana No 11, Singaraja, INDONESIA

⁵ Accounting Department, School of Business and Management, Petra Christian University
Jl. Siwalankerto 121-131, Surabaya, INDONESIA

Corresponding author: ¹ayu.purnamawati@undiksha.ac.id

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 (GNP) 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 reevaluate 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 (Roshaiza & 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 & Prottas, 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 fulfil 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 (Setiadharmas & 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.

H_{2a}: Return on assets affects market value.

H_{2b}: 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 (Aldamen et al., 2015) also state a positive effect on the cost of debt by considering the risk faced.

H_{3a}: WACC cost of equity affects market value.

H_{3b}: WACC cost of debt affects market value.

METHODOLOGY

Table 1. Sample presentation summary

Sample criteria	Number of observations
Total mining company	41
Companies registered in 2016-2020	(6)
Companies Number as population	35
Total period (in years)	5
The number of samples used in the study (35 x 5)	175

Table 2. Definitions

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

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

Model 1

$$MV_{it} = \alpha_0 + \beta_1 FO_{it} + \beta_2 ROA_{it} + \beta_3 ROE_{it} + \beta_4 WACC_{it} + \beta_5 Liq_{it} + \beta_6 TotAs_{it} + \varepsilon_t$$

Model 2 is used to answer hypothesis 3

Model 2

$$MV_{it} = \alpha_0 + \beta_1 FO_{it} + \beta_2 ROA_{it} + \beta_3 ROE_{it} + \beta_4 WACE_{it} + \beta_5 WACD_{it} + \beta_6 Liq_{it} + \beta_7 TotAs_{it} + \varepsilon_t$$

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

Model 3

$$MV_{it} = \alpha_0 + \beta_1 FO_{it} + \beta_2 ROA_{it} + \beta_3 ROE_{it} + \beta_4 WACC_{it} + \beta_5 FO_{it} * ROA_{it} + \beta_6 Liq_{it} + \beta_7 TotAs_{it} + \varepsilon_t$$

Model 4

$$MV_{it} = \alpha_0 + \beta_1 FO_{it} + \beta_2 ROA_{it} + \beta_3 ROE_{it} + \beta_4 WACC_{it} + \beta_5 FO_{it} * TotAs_{it} + \beta_6 Liq_{it} + \beta_7 TotAs_{it} + \varepsilon_t$$

Information:

- MV_{it} = Market value for firm i in year t ,
- FO_{it} = Family ownership for company i in year t ,
- $TotAs_{it}$ = Total assets for company i in year t ,
- ROA_{it} = Return on assets for company i in year t ,
- ROE_{it} = Return on equity for company i in year t ,
- Liq_{it} = Liquidity for company i in year t ,
- $WACE_{it}$ = WACC cost of equity for company i in year t ,
- $WACD_{it}$ = WACC cost of debt for company i in year t ,
- ε_{it} = Residual

each i and 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

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

Table 4. Correlation

Variables	Correlations							
	1	2	3	4	5	6	7	8
FO (1)	1	0.4078***	0.1828**	0.1136*	0.012	-0.0675	-0.0474	0.2652***
ROA (2)		1	0.4702***	0.1499**	-0.0376	-0.1219	0.0868	0.2293***
ROE (3)			1	0.0978	0.0760	0.0335	-0.4219***	0.2177***
WACC (4)				1	0.0738***	0.0079	-0.2256***	0.2331***
WACE (5)					1	0.1225	-0.2262***	0.3240***
WACD (6)						1	-0.0473	0.2073***
Liq (7)							1	-0.2492***
TotA (8)								1

Table 5. Panel diagnostic test

Items	Panel Diagnostic Test				
	P-Values	Model 1	Model 2	Model 3	Model 4
Fixed Effect Estimator		1.26E-05	1.24E-04	6.29E-05	3.68E-05
Random Effect Estimator		3.06E-06	8.11E-05	7.57E-06	6.48E-05
Hausman test		0.7096	0.5598	0.7759	0.2777

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); (Lagarias & 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

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

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 (levdokymov 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. (Gulamhussen 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 & Savsar, 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 & Isnalita, 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

- Adendorff, C., & Halkias, D. (2014). Leveraging ethnic entrepreneurship, culture and family dynamics to enhance good governance and sustainability in the immigrant family business. *Journal of Developmental Entrepreneurship*, 19(2), 1–23.
- Adenugba, A. A., Ige, A. A., & Kesinro, O. R. (2016). Financial leverage and firms' value: a study of selected firms in Nigeria. *European Journal of Research and Reflection in Management Sciences*, 4(1).
- Ahmad, I., Alam, M. S., & Yameen, M. (2019). A study of economic value added (EVA) & market value added (MVA) of Hindustan Petroleum Corporation Limited. *Global Journal of Economics and Business*, 6(1), 225–237.
- Aldamen, H., Saker, S., Abouelhemdiat, S., & Hassira, E. A. (2015). Information risk and cost of debt in emerging markets: evidence from Qatar. *Asian Journal of Business and Accounting*, 8(1), 39–64.
- Alipour, M., Mohammadi, M. F., & Derakhshan, H. (2015). Determinants of capital structure: an empirical study of firms in Iran. *International Journal of Law and Management*, 57(1), 53–83.
- Alipour, Mohammad, & Pejman, M. E. (2015). The impact of performance measures, leverage and efficiency on value-added market value: Evidence from Iran. *Global Economics and Management Review*, 20(1), 6–14.
- Amore, M.D., & Minichilli, A. (2018). Local political uncertainty, family control and investment behavior. *J. Financ. Quant. Anal*, 53, 1781–1804.
- Amore, Mario Daniele, Pelucco, V., & Quarato, F. (2022). Family ownership during the covid-19 pandemic. *Journal of Banking & Finance*, 135, 106–385.
- Anderson, R. C., Reeb, D. M., & Zhao, W. (2012). Family-controlled firms and informed trading: evidence from short sales. *The Journal of Finance*, 67(1), 351–385.
- Angelia, N., & Toni, N. (2020). The analysis of factors affecting dividend policy in food and beverage sector manufacturing companies listed in Indonesia Stock Exchange in 2015-2017. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 3(2), 902–910.
- Appelbaum, Calla, Desautels, & Hasan. (2017). The challenges of organizational agility. *Ind. Commer. Train*, 49, 6–14.
- Armour, J., Enriques, L., Hansmann, H., & Kraakman, R. (2017). The Basic governance structure of public corporations: the interests of shareholders as a class. *Working Paper. Harvard Law School Cambridge*, 1, 1–34.
- Asad, F., Gulzar, S., Bangassa, K., & Khan, M. J. (2019). Capital structure adjustment and market reaction following seasoned equity offerings. *International Journal of Finance & Economics*.
- Aßländer, M. S., Roloff, J., & Nayır, D. Z. (2016). Suppliers as stewards? Managing social standards in first-and second-tier suppliers. *Journal of Business Ethics*, 139(4), 661–683.
- Berry, S. G., Betterton, C. E., & Karagiannidis, I. (2014). Understanding weighted average cost of capital: a pedagogical application. *Journal of Financial Education*, 115–136.
- Beuren, I. M., Politelo, L., & Martins, J. A. S. (2016). Influence of family ownership on company performance. *International Journal of Managerial Finance*, 12(5), 654–672.
- Birjandi, H., Hakemi, B., & " M. M. M. S. (2015). The study effect agency theory and signalling theory on the level of voluntary disclosure of listed companies in Tehran Stock Exchange. *Research Journal of Finance and Accounting*, 6(1), 174–185.
- Block, J. H. (2012). R&D investments in family and founder firms: An agency perspective. *Journal of Business Venturing*, 27(2), 248–265.
- Bojňanský, J., Tóth, M., & Serenčák, P. (2012). Effect of public finances on financial management of agricultural primary production. *The Scientific Journal for Economics and Informatics in Agriculture*, 15(1), 14–17.
- Bozec, Y., Laurin, C., & Meier, I. (2014). The relation between excess control and cost of capital. *International Journal of Managerial Finance*, 10(1), 93–114.
- Brealey, R., Myers, S., & Allen, F. (2016). Principles of corporate finance. 12th Ed.
- Brigham, E., & Daves, P. (2012). *Intermediate financial management*.
- Brown, J. A., & Forster, W. R. (2013). CSR and stakeholder theory: A tale of Adam Smith. *Journal of Business Ethics*, 112(2), 301–312.
- Budhathoki, P. B., & Rai, C. K. (2020). The impact of the debt ratio, total assets, and earning growth rate on WACC: Evidence from Nepalese Commercial Banks. *Asian Journal of Economics, Business and Accounting*, 15(2), 16–23.
- Bushee, B. J., & Miller, G. S. (2012). Investor relations, firm visibility, and investor following. *The Accounting Review*, 87(3), 867–897.
- Cao, Y., Myers, J. N., Myers, L. A., & Omer, T. C. (2015). Company reputation and the cost of equity capital. *Rev Account Stud*, 20, 42–81.
- Chasanah, N., & Sucipto, A. (2019). Liquidity ratio, profitability, and solvency on stock returns with capital structure as an intervening variable (study on food and beverage sub sector listed in Indonesia Stock Exchange (Idx) period 2013-2017). *Ekspektra: Jurnal Bisnis Dan Manajemen (2019)*, 52–68.

- Christensen, H. B., & Nikolaev, V. V. (2013). Does fair value accounting for non-financial assets pass the market test? *Review of Accounting Studies*, 18(3), 734–775.
- D'Aurizio, L., Oliviero, T., & Romano, L. (2015). Family firms, soft information and bank lending in a financial crisis. *J. Corpor. Finance*, 33, 279–292.
- Dahmen, P., & Rodríguez, E. (2014). Financial literacy and the success of small businesses: An observation from a small business development center. *Numeracy*, 7(1), 1–12.
- Deari, F., & Dinca, G. (2015). Financial performances of Romanian wood industry companies. *Bulletin of the Transilvania University of Brasov. Economic Sciences.*, 8(1), 147–158.
- Deephouse, D. L., & Jaskiewicz, P. (2013). Do family firms have better reputations than non-family firms? An integration of socioemotional wealth and social identity theories. *Journal of Management Studies*, 50(3), 337–360.
- Fajaria, A. Z., & Isnailita, N. I. D. N. (2018). The effect of profitability, liquidity, leverage and firm growth of firm value with its dividend policy as a moderating variable. *International Journal of Managerial Studies and Research (IJMSR)*, 6(10), 55–69.
- Frank, M., & Shen, T. (2016). Investment and the weighted average cost of capital. *Journal of Financial Economics*, 19(2), 300–315.
- Glova, J., & Mrázková, S. (2018). Impact of intangibles on firm value: An empirical evidence from European public companies 1. *Ekonomicky Casopis*, 66(7), 665–680.
- Goldberg, R. S., & Prottas, D. J. (2017). Capital investment analytical techniques in higher education: A factor in the cost growth? *Journal of Managerial Issues*, 414–427.
- Gulamhussen, M. A., Pinheiro, C., & Sousa, R. (2012). The influence of managerial ownership on bank market value, performance, and risk: evidence from banks listed on the Stoxx Global Index. *Journal of International Financial Management & Accounting*, 23(2), 121–153.
- Habibniya, H., & Dsouza, S. (2018). Impact of performance measurements against market value of shares in Indian Banks an empirical study specific to EVA, EPS, ROA, and ROE. *Journal of Management Research*, 18(4), 203–210.
- Halili, E., Saleh, A. S., & Zeitun, R. (2015). Governance and long-term operating performance of family and non-family firms in Australia. *Studies in Economics and Finance*, 32(4), 398–421.
- Harelimana, J. B. (2017). The role of risk management on financial performance of banking institutions in Rwanda. *Global Journal of Management and Business Research*, 17(1), 1–7.
- Hatane, S. E., Supangat, S., Tarigan, J., & Jie, F. (2019). Does internal corporate governance mechanism control firm risk? Evidence from Indonesia's three high-risk sectors. *Corporate Governance: The International Journal of Business in Society*, 19(6), 1362–1376.
- Heikal, M., Khaddafi, M., & Ummah, A. (2014). Influence analysis of return on assets (ROA), return on equity (ROE), net profit margin (NPM), debt to equity ratio (DER), and current ratio (CR), against corporate profit growth in automotive in Indonesia Stock Exchange. *International Journal of Academic Research in Business and Social Sciences*, 4(12), 101–114.
- Henrique, B. M., Sobreiro, V. A., & Kimura, H. (2018). Stock price prediction using support vector regression on daily and up to the minute prices. *The Journal of Finance and Data Science*, 4(3), 183–201.
- Husna, A., & Satria, I. (2019). Effects of return on asset, debt to asset ratio, current ratio, firm size, and dividend payout ratio on firm value. *International Journal of Economics and Financial Issues*, 9(5), 50–54.
- Ichsan, R. N., Suparmin, S., Yusuf, M., Ismal, R., & Sitompul, S. (2021). Determinant of Sharia Bank's financial performance during the covid-19 pandemic. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 298–309.
- Ievdokymov, V., Ostapchuk, T., Lehenchuk, S., Grytsyshen, D., & Marchuk, G. (2020). Analysis of the impact of intangible assets on the companies' market value. *Natsional'nyi Hirnychiy Universytet. Naukovyi Visnyk*, 3, 164–170.
- Jaara, O., & Elkotayni, K. A. . (2016). The impact of intangible assets internally developed on the market value of companies "A field study in the pharmaceutical companies in Jordan." *Accounting and Finance Research*, 5(2), 154–163.
- Jiraporn, P., Pandej, C., Kim, J. C., & Liu, Y. (2013). Exploring the agency cost of debt: Evidence from the ISS governance standards. *Journal of Financial Services Research*, 44(2), 205–227.
- Juwita, R. (2019). The effect of corporate governance and family ownership on firm value. *Review of Integrative Business and Economics Research*, 9, 168–178.
- Kadim, A., & Nardi, S. (2018). Determinant of company's liquidity and it's implications on financial's performance of retail trade company's in Indonesia at the period of 2008–2017. *Global and Stochastic Analysis (GSA)*, 5(7), 235–247.
- Kanwar, S., & Hall, B. H. (2017). The market value of R&D in emerging economies: Evidence from India. *The BE Journal of Economic Analysis & Policy*, 17(1).
- Karaca, S. S., & Savsar, A. (2012). The effect of financial ratios on the firm value: Evidence from Turkey. *Journal of Applied Economic Sciences*, 7(1), 56–63.
- Khanifah, K., Udin, U., Hadi, N., & Alfiana, F. (2020). Environmental performance and firm value: Testing the role of firm

- reputation in emerging countries. *International Journal of Energy Economics and Policy*, 10(1).
- Khidmat, W., & Rehman, M. (2014). Impact of liquidity & solvency on profitability chemical sector of Pakistan. *Economics Management Innovation*, 6(3), 34–67.
- Lagaras, S., & Tsoutsoura, M. (2015). *Family control and the cost of debt: evidence from the great recession* (Working Paper).
- Lehutová, K., A. K., & Klieštík, T. (2013). Quantification of equity and debt capital costs in the specific conditions of transport enterprises. *Proceedings of 17th International Conference*, 258–261.
- Listiani, N., & Supramono. (2020). Sustainable growth rate: Between fixed asset growth and firm value. *Management and Economics Review*, 5(1), 147–159.
- Loncan, T. R., & Caldeira, J. F. (2014). Capital structure, cash holdings and firm value: a study of Brazilian listed firms. *Revista Contabilidade & Finanças*, 25(64), 46–59.
- Maaloul, A. (2018). The effect of greenhouse gas emissions on cost of debt: Evidence from Canadian firms. *Corporate Social Responsibility and Environmental Management*, 1–9.
- Mahendra DJ, A., Artini, L., & Suarjaya, A. (2012). The influence of the financial performance of the company's value in manufacturing companies in Indonesia Stock Exchange. *Matrix: Journal of Management, Business Strategy and Entrepreneurship*.
- Malelak, M. I., Soehono, C., & Eunike, C. (2020). *Corporate governance, family ownership and firm value: Indonesia evidence*. SHS Web of Conferences, EDP Sciences, Paris, France.
- Massie, J., Tommy, P., & Koleangan, R. (2018). A financial analysis of Firm Value (Studies in consumer goods companies are food and beverages sub-sector listed on the Stock Exchange in 2011-2016). *EMBA Journal: Journal of Economic Research, Management, Business and Accounting*, 5(3).
- Meng, Y., & Yin, C. (2019). Trust and the cost of debt financing. *Journal of International Financial Markets, Institutions and Money*, 59, 58–73. <https://doi.org/10.1016/j.intfin.2018.11.009>
- Minichilli, A., Brogi, M., & Calabrò, A. (2016). Weathering the storm: family ownership, governance, and performance through the financial and economic crisis. *Corpo. Govern.: Int. Rev.*, 26, 552–568.
- Minichilli, Alessandro, Brogi, M., & Calabrò, A. (2015). Weathering the storm: Family ownership, governance, and performance through the financial and economic crisis. *Corporate Governance: An International Review*, 24(6), 552–568.
- MSCI Inc. (2022). *MSCI emerging markets index*. Retrieved from MSCI ACWI Index. <https://app2.msci.com/products/indexes/performance>
- Nakhaei, H., & Hamid, N. I. N. B. (2013). The relationship between economic value added, return on assets, and return on equity with market value added in Tehran Stock Exchange (TSE). *Proceedings of Global Business and Finance Research Conference*, 16(11).
- Nyamasege, D., Okibo, W. B., Nyang'au, A. S., Sang'ania, P. O., Omosa, H., & Momanyi, C. (2014). Effect of asset structure on value of a firm: a case of companies listed in Nairobi securities exchange. *Research Journal of Finance and Accounting*, 5(7), 205–212.
- Obradovich, J., & Gill, A. (2013). *The impact of corporate governance and financial leverage on the value of American firms*.
- Okoye, P. V. C., Offor, N., & Juliana, M. I. (2019). Effect of intangible assets on performance of quoted companies in Nigeria. *International Journal of Innovative Finance and Economics Research*, 7(3), 58–66.
- Owolabi, S. A., & Obida, S. S. (2012). Liquidity management and corporate profitability: Case study of selected manufacturing companies listed on the Nigerian stock exchange. *Business Management Dynamics*, 2(2), 10–25.
- Owusu, F. B., & Alhassan, A. L. (2020). Asset-Liability Management and bank profitability: Statistical cost accounting analysis from an emerging market. *International Journal of Finance & Economics*, 1–15.
- Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*, 10(1), 74–95.
- Pless, N. M., Maak, T., & Waldman, D. A. (2012). Different approaches toward doing the right thing: Mapping the responsibility orientations of leaders. *Academy of Management Perspectives*, 26(4), 51–65.
- Pratt, S. P., & Grabowski, R. J. (2014). Weighted average cost of capital. Cost of capital: Applications and examples, fifth edition. In *John Wiley & Sons, Inc. Published*.
- Puspitha, M. Y., & Yasa, G. W. (2018). Fraud pentagon analysis in detecting fraudulent financial reporting (study on Indonesian capital market). *International Journal of Sciences: Basic and Applied Research*, 42(5), 93–109.
- Rahayu, S., Rohman, A., & Harto, P. (2021). Herding behavior model in investment decision on Emerging Markets: Experimental in Indonesia. *The Journal of Asian Finance, Economics, and Business*, 8(1), 53–59.
- Rahman, M., & Hossain, S. Z. (2020). Does fixed asset revaluation create avenues for financial numbers game? Evidence from a developing country. *Journal of Asian Finance, Economics and Business (JAFEB)*, 7(9), 293–304.
- Rahman, M. M., Zheng, C., & Ashraf, B. N. (2018). Capital requirements, the cost of financial intermediation and bank risk-taking: Empirical evidence from Bangladesh. *Research in International Business and Finance*, 44, 488–503.

- Ramli, N. A., Latan, H., & Solovida, G. T. (2019). Determinants of capital structure and firm financial performance—A PLS-SEM approach: Evidence from Malaysia and Indonesia. *The Quarterly Review of Economics and Finance*, 71, 148–160.
- Revelli, C., & Viviani, J. (2015). Financial performance of socially responsible investing (SRI): what have we learned? A meta-analysis. *Business Ethics: A European Review*, 24(2), 158–185.
- Rosada, F. L., & Idayati, F. (2017). Influence the profitability of the value of automotive companies in the Indonesia Stock Exchange. *Journal of Science and Accounting Research*, 6(1), 230.
- Roshaiza, T., & Azura, S. N. (2014). Overview of capital structure theory. *Studies in Business & Economics*, 9(2).
- Salvato, C., Sargiacomo, M., Amore, M. D., & Minichilli, A. (2020). Natural disasters as a source of entrepreneurial opportunity: family business resilience after an earthquake. *Strat. Entrepreneurship J.*, 14, 594–615.
- Sattar, M. S. A. (2015). Cost of capital—the effect to the firm value and profitability: Empirical evidences in case of personal goods (textile) sector of KSE 100 index. *Journal of Poverty, Investment and Development*, 24–28.
- Sener, P. (2014). Influence of family ownership and management on firm performance: evidence from public firms in Turkey. *Revue de L'Entrepreneuriat*, 13(3), 143–169.
- Setiadharmas, S., & Machali, M. (2017). The effect of asset structure and firm size on firm value with capital structure as intervening variable. *J Bus Fin Aff*, 4, 1–5.
- Sharma, P., Davcik, N. S., & Pillai, K. G. (2016). Product innovation as a mediator in the impact of R&D expenditure and brand equity on marketing performance. *Journal of Business Research*, 69(12), 5662–5669.
- Shygun, M. M., Ostapyuk, N. A., Zayachkivska, O., & Goilo, N. (2020). The influence of the classification of non-current assets as holding for sales on the liquidity of the company's balance sheet. *Entrepreneurship And Sustainability Issues*, 8(1), 430–441.
- Sienatra, K. B., Sumiati, & Andarwati. (2015). Ownership structure as a corporate value determinant. *Jurnal Akuntansi Multiparadigma*, 6(1), 124–132.
- Soda, M. Z., Oroud, Y., & Makhoulouf, M. H. (2021). The effect of financial policy and capital assets on firm performance: Evidence from service companies listed on the Amman Stock Exchange. *Accounting*, 7(4), 917–924.
- Song, J., Wang, R., & Cavusgil, S. T. (2015). State ownership and market orientation in China's public firms: An agency theory perspective. *International Business Review*, 24(4), 690–699.
- Suto, M., & Takehara, H. (2016). Corporate social responsibility and the cost of capital: Evidence from Japanese firms. *Asian Finance Association (AsianFA) 2016 Conference*, 1–23.
- Tahu, G. P., & Susilo, D. D. B. (2017). Effect of liquidity, leverage and profitability to the firm value (dividend policy as moderating variable) in manufacturing company of Indonesia stock exchange. *Research Journal of Finance and Accounting*, 8(18), 89–98.
- Terpstra, M., & Verbeeten, F. H. (2014). Customer satisfaction: Cost driver or value driver? Empirical evidence from the financial services industry. *European Management Journal*, 32(3), 499–508.
- Thakur, R., & Workman, L. (2016). Customer portfolio management (CPM) for improved customer relationship management (CRM): Are your customers platinum, gold, silver, or bronze? *Journal of Business Research*, 69(10), 4095–4102.
- Timbuleng, F., Nangoy, S., & Saerang, I. (2015). The effect of factors, liquidity, leverage, NPM, and ROI on Firm Value (Study on Consumer Goods Companies Listed on the Indonesia Stock Period 2010- 2013). *EMBA Journal: Journal of Economic Research, Management, Business and Accounting*, 3(2).
- Torelli, R., Balluchi, F., & Furlotti, K. (2020). The materiality assessment and stakeholder engagement: A content analysis of sustainability reports. *Corporate Social Responsibility and Environmental Management*, 27(2), 470–484.
- Tran, Q. T. (2021). Foreign ownership and cost of debt financing: evidence from an emerging market. *International Journal of Emerging Markets*, 16(5), 1–15.
- Tsai CF, Lu YH, & Yen, D. (2012). Determinants of intangible assets value: The data mining approach. *Els. Sci. Publishers B. V*, 67–77.
- Veronika, F., Tibor, T., & Péter, V. (2014). Financial indicators in managerial decision-making. *The Annals of The University of Oradea*, 891.
- Vitezić, N., Vuko, T., & Mörec, B. (2012). Does financial performance have an impact on corporate sustainability and csr disclosure—a case of croatian companies? *Journal of Business Management*, 5, 40–47.
- Wang, Y. D., Rong, Koong, K. S., & Fan, W. (2016). Effects of R&D policy choice on accounting performance and market value. *R&D Management*, 47(4), 545–556.
- Wang, K. T., & Shailer, G. (2017). Does ownership identity matter? A meta-analysis of research on firm financial performance in relation to government versus private ownership. *Abacus*, 54(1), 1–35.
- Xia, Y., Singhal, V. R., & Zhang, G. P. (2016). Product design awards and the market value of the firm. *Production and Operations Management*, 25(6), 1038–1055.
- Xu, S., Liu, D., & Huang, J. (2014). Corporate social responsibility, the cost of equity capital and ownership structure: An analysis of Chinese listed firms. *Australian Journal of Management*, 40(2), 245–276.

Zeitun, R., & Tian, G. G. (2014). Capital structure and corporate performance: evidence from Jordan. *Australasian Accounting Business & Finance Journal Forthcoming*, 1–36.