



Determinants of Financial Performance and Their Impact on Firm Value in the Building Construction Industry Sub-Sector

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DOI: <https://doi.org/10.54099/ijibmr.v2i2.387>

ARTICLE INFO

Research Paper

Article history:

Received: 18 October 2022

Revised: 29 November 2022

accepted: 25 December 2022

Keywords: intellectual capital, managerial ownership, firm size, company financial performance, firm value.

ABSTRACT

This study aims to analyze the effect of intellectual capital, managerial ownership, company size and company financial performance on firm value. This research was conducted at building construction industry sub-sector companies listed on the Indonesia Stock Exchange for the observation period from 2017 – 2021. A total sample of 9 companies was obtained using a purposive sampling technique. This study used panel data regression analysis with STATA 17 software. The results showed that intellectual capital had a positive and significant effect on the company's financial performance, while managerial ownership and company size had a negative and significant effect. Intellectual capital has a positive and insignificant effect on firm value, while managerial ownership and firm size have a negative and significant effect. The company's financial performance has a positive and significant effect on firm value, and is able to mediate the influence of intellectual capital on firm value. However, the company's financial performance is not able to mediate the effect of managerial ownership and company size on firm value. This research will have an impact on increasing understanding and consideration for investors when making decisions to invest in the Indonesian Stock Exchange.

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INTRODUCTION

Gross Domestic Product (GDP) is an important indicator to determine the economic conditions in a country in a certain period, which is supported by various business sectors in that country. The Building Construction Industry (Heavy Constructions & Civil Engineering), for example, is one of the important pillars of the Indonesian Infrastructure sector, becoming the fourth largest contributor to national GDP in 2021. This industry recorded a Gross Domestic Product (GDP) value of IDR 1.77 quadrillion or 10.44% of the total value of Indonesia's Gross Domestic Product (GDP) in 2021 which reaches IDR 16.97 quadrillion based on a report issued by the Central Bureau of Statistics. (www.bps.go.id). Until now, the government continues to be aggressive in carrying out infrastructure development. Even during the Covid-19 pandemic, this sector was included in the priority sectors so that the government continued to build various types of infrastructure in these conditions. (<https://investor.id>)

The high value of the Gross Domestic Product (GDP) and the incessant infrastructure development carried out by the government, in fact, did not lead to positive growth in the value of the Building Construction Industry (Heavy Constructions & Civil Engineering) companies. Firm value is very important because it reflects the company's performance which can affect investors' perceptions of the company. With a good company value, the company will be viewed favorably by potential investors, and vice versa. The following graph shows that the movement of company value (Price To Book Value, PBV) in this industry has a downward trend from 2017 – 2021.



Figure 1. Sectoral (Infrastructures) and Industrial (Heavy Constructions & Civil Engineering) PBV values for the period 2017 - 2021

Previous research has found mixed results regarding the factors that affect firm value. Maryanto (2017), Nafiroh & Nuhumury (2016), Soewarno & Ramadhan (2020) state that intellectual capital has a positive and significant effect on company value. In contrast to Aida & Rahmawati (2015), Hadiwijaya & Rohman (2013), Hamidah (2015), which shows that intellectual capital has a negative and insignificant effect on firm value.

Putranto (2018), Soewarno & Ramadhan (2020) state that managerial ownership has a positive and significant effect on firm value. However, Hamidah (2015), Nurwahidah & Husnan (2019), Sah'idah et al. (2020), Sudiyatno et al. (2020) found that managerial ownership has a negative and significant effect on firm value.

Sudiyatno et al. (2020) stated that company size has a positive and significant effect on company value. This is different from Rahayu (2019), Sah'idah et al. (2020), Hirdinis (2019) who found that company size has a negative and significant effect on company value.

The results of the above research are research gaps that provide space for researchers to conduct research related to firm value. This study uses an observation period from 2017 to 2021, as a differentiator from previous studies. There is relatively little research on Building Construction Industry Sub-Sector companies, so this research will produce a real contribution to the development of knowledge that is theoretically studied by academics.

LITERATURE REVIEW

A. Signaling Theory

According to Brigham and Houston (2014), signalling theory is an action taken by companies to provide guidance to investors on how management views the company's prospects. Signals can be in

the form of promotions or other information stating that the company is better than other companies, so that it will influence the investment decisions of parties outside the company.

Based on this theory, investors can distinguish between companies that have high value and companies that have low value. Investors' responses to positive and negative signals greatly affect market conditions, they will react in various ways in response to these signals (Handini, 2020).

B. Stakeholder Theory

According to Deegan (2004) based on stakeholder theory, organizational management is expected to carry out activities that are considered important by stakeholders and report back on these activities to stakeholders. According to Ghozali and Chariri (2007) stakeholder theory is a theory which states that a company is not an entity that only operates for its own sake, but must provide benefits to all its stakeholders (shareholders, creditors, consumers, suppliers, government, community, analysts, and other parties).

The main objective of stakeholder theory is to assist company management in increasing value creation as a result of the activities carried out and minimizing losses that may arise for stakeholders (Ulum, 2009).

C. Agency Theory

According to Jensen and Meckling (1976) agency relationship is a contract between the principal (shareholder) and the agent (manager) appointed to represent the principal which involves delegation of authority in decision making. Henceforth, the agency relationship defined by Jensen and Meckling is called agency theory. The running of the company mostly depends on the agent or agent's actions as a benchmark for the development of the company, so that the agent is often the concern of various parties in seeing the progress of the company (Manurung, 2012).

The relationship between agency theory and firm value is due to an agency relationship where there is a conflict of interest between the agent and the principal. So that investors really need financial performance to see the quality of a company before making an investment (Salim & Aulia, 2021).

D. Resources Based Theory

The theory of resources (resources based theory) is a theory that illustrates that companies can increase competitive advantage by developing resources so as to be able to direct companies to value creation. The ultimate goal is to increase the company's capabilities in the long term, which can only be achieved by investing in intellectual resources (especially in human capital, which is a key factor in creating value in modern business) and increasing the mobilization of the company's internal potential, especially those that are intangible (Ulum, 2009).

According to Belkaoui (2007) companies will excel in business competition and get good financial performance by owning, controlling and utilizing important strategic assets (tangible and intangible assets). a potential strategy to improve company performance is to combine tangible assets and intangible assets.

E. Intellectual Capital

Intellectual capital often defined as knowledge resources in the form of employees, customers, processes or technology used by companies in the process of creating corporate value Bukh, et al (2001). Meanwhile, according to Brooking (1996) in Ulum (2009) states that the term intellectual capital is given to a combination of intangible assets that can make a company function.

According to Ulum (2009), some researchers (eg Bukh, 2003) state that intellectual capital and intangible assets are the same and often overlap. While other researchers (eg Edvinsson and Malone, 1997; Boekestein, 2006) state that intellectual capital is part of intangible assets (intangible assets).

The measurement of Intellectual Capital found by Pulic (1998) is by using the main component of the Value Added Intellectual Coefficient (VAIC) which can be seen from the company's resources, namely physical capital (VACA-value added capital employed), human capital added (VAHU – Value human capital) and structural capital (STVA- structural capital value added), are formulated as follows

$$VAIC = VACA + VAHU + STVA \quad (1)$$

$$VACA = VA/CE \quad (2)$$

$$VAHU = VA/HC \quad (3)$$

$$STVA = SC/VA \quad (4)$$

Information

$$VA = \text{Outputs} - \text{Inputs}$$

$$\text{Output} = \text{Sales} + \text{Total other income}$$

$$\text{Inputs} = \text{Total expenses} - \text{Salary expenses}$$

$$CE = \text{Capital Employed} = \text{Total assets} - \text{Current liabilities}$$

$$HC = \text{Human Capital} = \text{Salary expenses}$$

$$SC = \text{Structural Capital} = VA - HC \quad (5)$$

F. Managerial Ownership

According to Jensen & Meckling (1976) states that the ownership structure consists of three variables, namely: (1) inside equity (held by manager), (2) outside equity (held by anyone outside of the firm), and (3) debt (held by anyone outside of the firm). Thus the capital itself is separated between internal shareholders (managers) and outside shareholders (someone outside the company). According to Christiawan and Tarigan (2007) managerial ownership is a situation where managers own company shares or managers as well as company shareholders as indicated by the large percentage of company share ownership by managers. Rustendi and Jimmi (2008) define managerial ownership (MOWN) as the percentage of company shares owned by management (managers and directors).

$$MOWN = \frac{\text{Share Ownership by Management}}{\text{Total Number of Company Shares}} \times 100\% \quad (6)$$

Managerial ownership is part of the company's ownership structure. The ownership structure is the separation of ownership and control of company shares (Barako et al., 2006). This separation of ownership also aims to control the company's operations, both of which have their own interests so that the ownership of both management and other investors can influence decisions made related to financial decisions including investment decisions, funding decisions and dividend policies.

G. Firm Size

Firm size reflects the size or number of assets owned by the company and has an influence on the value of the company (Horne & Wachowicz, 2009). The size of the company shows that the company is increasing, so that investors will give a positive response and the value of the company will increase.

According to Brealey et al. (2007), companies with large assets will use the maximum available resources to generate maximum business profits and companies with small assets also generate profits according to their resources. The number of assets owned by a company shows the size of the company. The larger the size of the company, the easier it is to obtain internal or external funding sources, which will affect the value of the company itself.

Company size is usually used by investors as an indicator in assessing company assets or performance. The size of a company can affect the company's ability to deal with risks that may arise from various situations. The larger the company size, the wider and more detailed the information the company will provide, so that investors trust and invest in the company (Rahayu, 2019).

$$Firm\ Size = \ln(\text{Total Assets}) \quad (7)$$

H. Financial Performance

According to Handini (2020), the company's financial performance is the result of many individual decisions that are made continuously by management as achievements that have been realized through work that has been carried out to the fullest which includes income statements, balance sheets and reports on changes in capital which can be used as measuring tool to determine the company's performance and indicators to evaluate the performance of managers. at a certain period.

The tool commonly used to evaluate a company's financial performance is financial ratio analysis. The following financial ratios can be used to measure company profitability such as Gross Profit Margin (GPM), Net Profit Margin (NPM), Return on Assets (ROA), and Return on Equity (ROE), Salim & Susilowati (2019). Return on Assets (ROA), which is a ratio measured based on a comparison between profit after tax and total company assets, is an important measure for assessing companies that influence investors to make decisions (Kurniasih & Heliantono, 2016).

According to Sihombing (2018), the profitability ratio is measured using the link between net income and assets, in other words ROA measures a company's ability to generate net income based on a certain level of assets. A high ROA ratio indicates better efficiency and effectiveness in asset management.

$$ROA = \frac{\text{Earning After Tax}}{\text{Total Asset}} \times 100\% \quad (8)$$

I. Firm Value

Brigham & Houston (2014) states that company value is a condition that has been achieved by a company as an illustration of public trust in the company after going through a process of activity for several years, namely since the establishment of the company. established until now. The value of the company becomes an important thing for the company, because increasing the value of the company means increasing prosperity for shareholders. The higher the stock price, the higher the value owned by the company.

According to Sihombing (2018), when a company is listed on the stock exchange, the size of the company's book value can refer to the company's share price on the market so that the company's book value is indicated by the ratio of book value to stock price or Price To Book Value (PBV). The ratio of the stock market price to the book value per share shows how many rupiahs investors will pay for every rupiah of the company's book value (Handini, 2020).

$$PBV = \frac{\text{Market Price Per Share}}{\text{Book Value Per Share}} \times 100\% \quad (9)$$

J. Frameworks

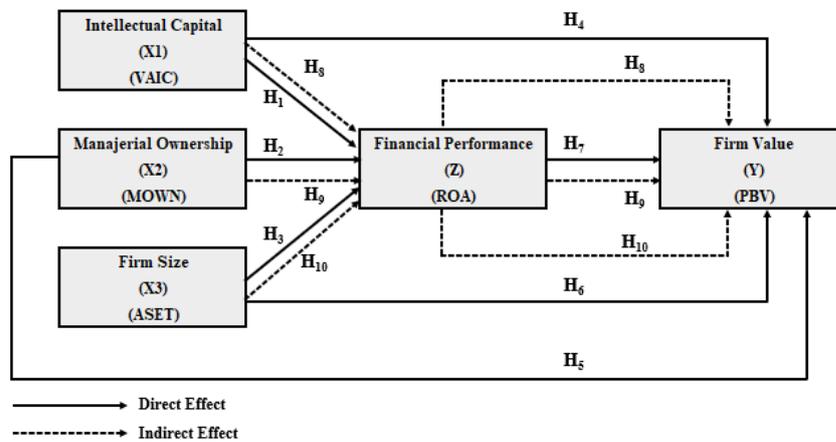


Figure 2. Framework

K. Hypothesis

H₁: It is suspected that intellectual capital has a positive effect on the company's financial performance.

H₂: It is suspected that managerial ownership has a positive effect on the company's financial performance.

H₃: It is suspected that firm size has a positive effect on company's financial performance.

H₄: It is suspected that intellectual capital has a positive effect on firm value.

H₅: It is suspected that managerial ownership has a positive effect on firm value.

H₆: It is suspected that company size has a positive effect on firm value.

H₇: It is suspected that the company's financial performance has a positive effect on firm value.

H₈: It is suspected that the company's financial performance is able to mediate the relationship between intellectual capital and firm value.

H₉: It is suspected that the company's financial performance is able to mediate the relationship between managerial ownership and firm value.

H₁₀: It is suspected that the company's financial performance is able to mediate the relationship between firm size and firm value.

METHODS

This research is a causal research using a quantitative approach. Causal research is research that aims to test hypotheses about the influence of one or more independent variables (independent variables) on the dependent variable (the dependent variable).

A. Population and Sample

Population used in this study are all building construction sub-sector companies listed on the Indonesia Stock Exchange (IDX) in 2021, totalling 23 companies. The data taken from the company is

in the form of annual financial reports and notes which have been published for five periods, namely 2017 to 2021. The research sample was taken by purposive sampling, where the sample is used if it meets the following criteria:

Table 1. Sample Selection Criteria

No.	Criteria	Number of Companies
1	Building Construction Sub Sector Companies that are still listed on the Indonesian Stock Exchange (IDX) in the last 5 years or in the period 2017 - 2021	23
2	Building Construction Sub Sector Companies that publish their financial reports for the period 2017 - 2021	(6)
3	Building Construction Sub Sector Companies that have never made a loss or the value of Return On Assets (ROA) has never been negative during the 2017 - 2021 period	(8)
	Selected sample	9

Source: IDX, processed.

B. Data analysis method

Before the panel data regression analysis was carried out, a descriptive analysis was carried out first. Selection of the best panel data is done by using the Chow test, Hausman test and Lagrange Multiplier test. The classic assumption test uses the Multicollinearity Test and the Heteroscedasticity Test. Panel data regression analysis was performed using the Coefficient of Determination, t-test, F-test, with the tools of the STATA 17 program. In general, the equations used for panel data regression are as follows:

$$ROA = \alpha_1 + b_1VAIC + c_1MOWN + d_1SIZE + \epsilon_1 \quad (10)$$

$$PBV = \alpha_2 + b_2VAIC + c_2MOWN + d_2SIZE + e_1ROA + \epsilon_2 \quad (11)$$

To test the indirect effect used test Sobel by calculating the standard error coefficients a and b and calculating the value of t to determine the significance level of the effect, according to the following formula.

$$S_{ab} = \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2} \quad (12)$$

$$t = \frac{ab}{sab} \quad (13)$$

Information:

- a : regression coefficient of the independent variable (X) on the mediating variable (Z)
- b : regression coefficient of the mediating variable (Z) on the dependent variable (Y)
- Sa : standard error coefficient a
- Sb : standard error coefficient b
- t : the significance of the influence

The results of the analysis will compare the value of t-count with t-table. If the t-count is greater than the t-table with a significance level of 0.05, which is 1.96, it can be said that there is a mediating effect (Ghozali, 2018).

RESULTS AND DISCUSSION

A. Descriptive Statistical Analysis

Descriptive statistical analysis produces information consisting of the average value (mean), standard deviation, minimum value (Min) and maximum value (Max) of the research data. The following are the results of the descriptive statistical analysis of the research.

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Y (PBV)	45	1.0847	0.4845	0.4593	2.5316
Z (ROA)	45	4.6088	3.1884	0.0622	12.7186
X1 (VAIC)	45	2.5713	1.0743	1.3726	6.5750
X2 (MOWN)	45	0.0720	0.1482	0.0000	0.4740
X3 (SIZE)	45	29.6693	1.4497	27.2227	31.8707

Source: Data processing, STATA 17 version

B. Classic Assumption Test

In this study, the classical assumption test only used the multicollinearity test and the heteroscedasticity test. Multicollinearity testing is done by observing VIF (Variance Inflation Factor) values. Based on the results of the multicollinearity test, it shows that the model does not experience multicollinearity by looking at the results of the VIF value of 3.87 or not exceeding 10. Based on the results of the heteroscedasticity test, it is known that all Prob values independent variables greater than 0.05. This means that the data used in this study are homoscedasticity or there is no heteroscedasticity.

C. Best Model Selection

Several stages of testing were carried out to select the appropriate model to use for panel data processing, including the Chow test, Hausman test, and the Lagrange Multiplier test. By using the STATA 17 program tool, the test results show that the Random Effect Model (REM) is the best model for the first regression, while the Fixed Effect Model (FEM) is the best model for the second regression.

D. Regression Model Test

The regression model test for the first panel regression produces an R-squared value of 0.7096 or 70.96% which means that the influence of the variables in this study is 70.96% and the remaining 29.04% is influenced by other variables outside of this study. The panel regression model has a Prob (F-Statistic) value of 0.0000 or less than 0.05 which means that VAIC, MOWN and SIZE together have a significant effect on ROA.

As for the second panel regression model, it shows that the model has an R-squared value of 0.6633 or 66.33%, which means that the influence of the variables in this study is 66.33% and the remaining 33.67% is influenced by other variables outside of this study. The panel regression model has a Prob

(F-Statistic) value of 0.0000 or less than 0.05 which means that VAIC, MOWN, SIZE and ROA together have a significant effect on PBV.

E. Partial Significance Test (Statistical Test - t)

The t test or partial regression coefficient test is used to find out whether partially the independent variable has a significant effect or not on the dependent variable (Ghozali, 2018). Based on the t test, the following results are obtained.

Table 3. Influence Test Results

Variable	Coefficient	Std. Error	t-Value	Sign
Regression Panel 1 (Effect of VAIC, MOWN, SIZE on ROA)				
X1 (VAIC)	2.9062	0.4144	7.0100	0.0000
X2 (MOWN)	-8.6563	3.9290	-2.2000	0.0280
X3 (SIZE)	-0.9535	0.3039	-3.1400	0.0020
Constanta	26.0503	9.1504	2.8500	0.0040
Regresi Panel 2 (Effect of VAIC, MOWN, SIZE, ROA on PBV)				
X1 (VAIC)	0.0278	0.1319	0.2100	0.8340
X2 (MOWN)	-169.5709	41.1823	-4.1200	0.0000
X3 (SIZE)	-1.2539	0.3508	-3.5700	0.0010
Z (ROA)	0.0971	0.0329	2.9500	0.0060
Constanta	49.9782	11.1503	4.4800	0.0000

Source: Data processing, STATA 17 version

1) The Effect of Intellectual Capital (VAIC) on Financial Performance (ROA)

Intellectual capital (VAIC) has a coefficient value of 2.9062 with a significance value of 0.0000, meaning that H_0 is rejected and H_1 is accepted. So it can be concluded that intellectual capital has a positive effect on financial performance (ROA). The results of this study support stakeholder theory and resource theory, and are in line with Hadiwijaya & Rohman (2013), Kurniasih & Heliantono (2016), Salim & Djausin (2019), Salim & Winanto (2020), Soewarno & Ramadhan (2020) and Suroso et al. (2017) who found that intellectual capital has a positive and significant effect on the company's financial performance.

According to stakeholder theory, value creation from company activities will improve company performance. Stakeholders will appreciate companies that have superior resources because they will help the company to fulfil the interests of all stakeholders. As one of the company's stakeholders, investors in the capital market will show appreciation for the advantages of intellectual capital owned by the company by investing in the company, so that it will have an impact on the company's performance.

2) The Effect of Managerial Ownership (MOWN) on Financial Performance (ROA)

Managerial ownership (MOWN) has a coefficient value of -8.6563 with a significance value of 0.0280, meaning that H_0 is accepted and H_2 is rejected. So it can be concluded that managerial ownership has no positive effect on financial performance (ROA). The results of this study do not support agency theory, but agree with Gantino et al. (2021), Ilmi et al. (2017), Maryanto (2017) and



Siagian (2020) who found that managerial ownership has no effect on the company's financial performance.

According to agency theory, managerial ownership is an effective mechanism for overcoming agency conflicts that occur because of the interests between managerial and owners. The absence of influence from managerial ownership in this study indicates that the amount of managerial ownership of company shares cannot influence the increase or decrease in the company's financial performance. Conflicts of interest between shareholders and management in the financial sector cannot be properly resolved through share ownership by management.

3) The Effect of Firm Size (SIZE) on Financial Performance (ROA)

Firm size (SIZE) has a coefficient value of -0.9535 with a significance value of 0.0020, meaning that H_0 is accepted and H_3 is rejected. So it can be concluded that company size has no positive effect on financial performance (ROA). The results of this study do not support the signalling theory, but agree with the results of previous research conducted by Gustiana et al. (2019) who found that company size had no effect on the company's financial performance.

Based on the signal theory, the company will take action to provide guidance to investors on how management views the company's prospects. Large companies have greater opportunities to expand and develop their business, so it is only natural that these companies generate higher profits. The absence of influence from company size in this study indicates that company size is not the only consideration for investors. Companies with large company sizes, but mishandled in managing monetary funding sources, investors will not benefit.

4) The Effect of Intellectual Capital (VAIC) on Firm Value (PBV)

Intellectual capital (VAIC) has a coefficient value of 0.0278 with a significance value of 0.8340 which means that H_0 is accepted and H_4 is rejected. So it can be concluded that intellectual capital has no positive effect on firm value (PBV). The results of this study do not support stakeholder theory, but agree with the results of research conducted by Aida and Rahmawati (2015), Hadiwijaya & Rohman (2013), Hamidah (2015) and Siagian (2020), which found that intellectual capital has no effect on value company.

There is no effect of intellectual capital on firm value because large intellectual capital means that companies allocate more funds to finance human resources and other resources. There is an assessment by investors that a large allocation of funds for intellectual capital can be less effective because it will reduce cash which can reduce the cash allocation for dividends as expected by investors because investors expect return on investment in the form of dividends compared to capital gains obtained from the value of shares it has.

5) The Effect of Managerial Ownership (MOWN) on Firm Value (PBV).

Managerial ownership (MOWN) has a coefficient value of -169.5709 with a significance value of 0.0000, meaning that H_0 is accepted and H_5 is rejected. So it can be concluded that managerial ownership has no positive effect on firm value (PBV). The results of this study do not support agency theory, but agree with the results of research conducted by Ilmi et al. (2017), Maryanto (2017), Siagian (2020) and Sudiyatno et al. (2020) who found that managerial ownership has no effect on firm value.

The absence of influence from managerial ownership in this study indicates that the size of managerial ownership of company shares cannot affect the increase or decrease in firm value. The

average percentage of manager's share ownership is very small, does not affect decision making at the general meeting of shareholders or the company's ability to increase share prices.

6) The Effect of Firm Size (SIZE) on Firm Value (PBV)

Firm Size (SIZE) has a coefficient value of -1.2539 with a significance value of 0.0010, meaning that H_0 is accepted and H_6 is rejected. So it can be concluded that company size has no positive effect on firm value (PBV). The results of this study do not support signalling theory, but agree with the results of research conducted by Gustiana et al. (2019), Hirdinis (2019), Nurwulandari et al. (2021), Rahayu (2019), and Salim & Susilowati (2019) who found that company size has no effect on firm value.

Based on the signal theory, the company will take action to provide guidance to investors on how management views the company's prospects. Company size is a signal sent by the company to investors. The absence of influence from company size in this study indicates that company size is not the only consideration for investors. A large number of assets, but not accompanied by optimal management, will not have significant implications for the value of the company. Companies with large sizes, but mishandled in managing monetary funding sources, investors will not benefit.

7) The Effect of Financial Performance (ROA) on Firm Value (PBV)

Financial performance (ROA) has a coefficient value of 0.0971 with a significance value as big 0.0060, meaning that H_0 is rejected and H_7 is accepted. So it can be concluded that financial performance has a positive effect on firm value (PBV). The results of this study support the signalling theory, and are in line with the results of previous studies conducted by Maryanto (2017), Salim & Aulia (2021), Salim & Firdaus (2020), Salim & Wahyuni (2019) and Soewarno & Ramadhan (2020) which found that financial performance has a positive and significant effect on company value.

If the company's financial performance is really good, the company must provide a signal to external parties by taking actions or policies that cannot be carried out by other companies that do not have the same performance. The market responds positively where profitability is a representation of company performance, so that investors are willing to buy company shares at a higher price. Investors are interested in buying the company's shares in the hope of getting a high return on the investment.

F. Path Analysis and Sobel Test

Based on the results of path analysis and Sobel test, the results of testing and analysis are as follows following.

1) The Effect of Financial Performance (ROA) in Mediating Intellectual Capital (VAIC) on Firm Value (PBV).

Intellectual capital indirect influence (VAIC) through financial performance (ROA) is 2.6961 or greater than 1.96, meaning that H_0 is rejected and H_8 is accepted. So it can be concluded that financial performance is able to mediate the effect of intellectual capital on firm value (PBV). Results this research supports resource-based theory (RBT) and is in line with Aida and Rahmawati (2015), Hadiwijaya & Rohman (2013), Maryanto (2017), Nafiroh & Nuhumury (2016), and Soewarno & Ramadhan (2020) who found that financial performance is proven to be able to mediate intellectual capital on firm value.

Based on resource-based theory, companies can compete competitively if the company can manage and use resources according to its capabilities. When resources are managed effectively and efficiently, it can encourage increased performance for the company which will be responded positively by stakeholders, one of which is investors, so that the company's stock price will also increase and will be able to increase the value of the company.

2) The Influence of Financial Performance (ROA) in Mediating Managerial Ownership (MOWN) Against Firm Value (PBV).



The indirect effect of managerial ownership (MOWN) through financial performance (ROA) is -1.7035 or smaller than 1.96, meaning that H_0 is accepted and H_9 is rejected. So it can be concluded that financial performance is not able to mediate the effect of managerial ownership on firm value (PBV). The results of this study do not support the signalling theory, but agree with Ilmi et al. (2017), Maryanto (2017), Siagian (2020), Sudiyatno et al. (2020) who found that financial performance proved unable to mediate managerial ownership of firm value.

Signals from managers who also act as shareholders were not able to attract investors to invest more in the company. The percentage of share ownership by managerial parties has no effect on firm value even though there is an increase or decrease in the company's financial performance, in this study. This means that the company's financial performance is not an intervening variable between the effect of managerial ownership on firm value.

3) The Influence of Financial Performance (ROA) in Mediating Firm Size (SIZE) Against Firm Value (PBV).

Indirect influence of firm size (SIZE) through financial performance (ROA) is -2.0938 or smaller than 1.96, meaning that H_0 is accepted and H_{10} is rejected. So it can be concluded that financial performance is not able to mediate the effect of firm size on firm value (PBV). The results of this study do not support the signalling theory, but agree with Hirdinis (2019) who found that financial performance is proven to be unable to mediate company size to firm value.

Firm size as a signal sent by the company to investors, was not able to attract investors to invest more in the company, even though there was an increase or decrease in the company's financial performance. This can be interpreted that the company's financial performance is not an intervening variable between the effect of company size on firm value.

CONCLUSION

A. Conclusion

Based on the results of research and discussion of the effect of intellectual capital (VAIC), managerial ownership (MOWN), firm size (SIZE), and financial performance (ROA) on firm value (PBV) as well as the ability of financial performance to mediate the influence of these three variables on firm value, in building construction industry sub-sector companies listed on the Indonesia Stock Exchange in 2017 – 2021, it is concluded that:

- Intellectual capital has a positive and significant effect on the company's financial performance. So the first hypothesis (H_1) is accepted.
- Managerial ownership has a negative and significant effect on the company's financial performance. So the second hypothesis (H_2) is rejected.
- Firm size has a negative and significant effect on the company's financial performance. So the third hypothesis (H_3) is rejected.
- Intellectual capital has a positive and insignificant effect on firm value. So the fourth hypothesis (H_4) is rejected.
- Managerial ownership has a negative and significant effect on firm value. So that the fifth hypothesis (H_5) is rejected.
- Firm Size has a negative and significant effect on firm value. So the sixth hypothesis (H_6) is rejected.

- Company's financial performance has a positive and significant effect on firm value. So the seventh hypothesis (H₇) is accepted.
- Company's financial performance is able to mediate the influence of intellectual capital on firm value. So that the eighth hypothesis (H₈) is accepted.
- Company's financial performance is unable to mediate the influence of managerial ownership on firm value. So the ninth hypothesis (H₉) is rejected.
- Company's financial performance is unable to mediate the effect of firm size on firm value. So the tenth hypothesis (H₁₀) is rejected.

B. Suggestion

Suggestions for future researchers are to pay attention to other factors outside the variables of this study, such as Capital Adequacy Ratio (CAR), Debt to Equity Ratio (DER), the ratio of net income to shareholder equity (Return On Equity / ROE). The Covid 19 Pandemic factor is also recommended as input in research on building construction industry sub-sector companies or in other industrial sectors, to provide a wider range of observations.

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