The Effect of Debt to Equity Ratio, Earning Per Share and Company Size on Market Value of Equity With Intellectual Capital As Moderating Variable

Senja Milanda, Edyanus Halim, & Enni Savitri*

The Faculty of Economics and Business, Universitas Riau, Pekanbaru, Indonesia

* enni.savitri@lecturer.unri.ac.id

Article Info	Abstract
Received : 2021-06-08 Accepted : 2022-01-12 Published : 2022-01-31	The purpose of this study was to examine the effect of debt-to-equity ratio, earnings per share, and company size on market value of equity. In this study, intellectual capital was used as a moderating variable. The samples in this study are companies listed in manufacturing companies in 2017-2019 periods on the IDX. Data was processed using the method of moderated regression analysis (Rev Mou1). The results of this study found that debt to debt-to-equity ratio and company size affect the market value of equity meanwhile earning per share can't affect the market value of equity. Intellectual capital can moderate the effect of debt-to-equity ratio and company size on market value of equity. Based on the results, intellectual capital cannot moderate the effect of earnings per share on market value of equity.
Key words: market value of equity; debt to equity ratio; earning per share; company size	

INTRODUCTION

Manufacturing industry an important role in the Indonesian economy because of its ability to produce tradable products and create jobs. The manufacturing industry is considered more productive and can have a wide chain effect so that it can increase the added value of raw materials, increase the workforce, generate the largest source of foreign exchange, and the largest contributor to taxes and customs duties (Silalahi, 2014). Manufacturing companies as companies that have the largest number of industrial sub-sectors often experience the risk of declining sales of goods. The decrease in the number of sales will of course have an impact on the decrease in the amount of income that will be received by the company which has an impact on the amount of market value of equity so that the amount of market value of equity of the company and shareholders will also decrease. The manufacturing sector listed on the Indonesia Stock Exchange recorded an increase in the market value of equity with the highest value in 2017 which was 2542081 (billion rupiah) but in 2018 and 2019 were the years of concern for the manufacturing sector because the market value of equity decreased amounted to 218697 (billion rupiah)(Rev MOU2).

Problems that affect market value of equity in companies are usually not only in the form of external impacts, but will also have an impact on the company's performance. This happens partly because of the high level of corporate leverage considering that if the use of debt is too high, in addition to the risk of bankruptcy costs the company must face, the company also has to bear high agency costs. Thus, an increase in the amount of debt will increase market value of equity on the one hand, but at a certain point will also reduce market value of equity. Research on debt to equity ratio and market value of equity has been conducted by Uzliawati et al., (2018). This research was conducted on 101 manufacturing companies listed on the Indonesia Stock Exchange. This study found a positive correlation between debt to equity ratio to firm value. The results of this study indicate that the value of the company will increase along with the increase in DER. Companies with a higher debt to equity ratio will likely show that the company is able to balance the cost of debt and the debt benefits received by the company.

Research on debt to equity ratio and market value of equity has also been conducted by Shea (2019). This research was conducted on 10 companies from the biotechnology industry in Sandiego. The research draws on data from the last ten years which will allow the study to examine how companies' financial metrics performed both during a recession and during an economic recovery. The results of the study show that the debt to equity ratio has a positive effect on market capitalization or market value of equity this is because when a company increases the amount of leverage it has, their market capitalization increases. Assuming a company if it wants to increase its market capitalization, it must increase the amount of leverage it has. In contrast to the research conducted by Rahmana et al., (2020) who conducted research on manufacturing companies listed on the Indonesia Stock Exchange in 2016, 2017 and 2018. The research conducted showed that the debt to equity ratio had no effect on the market value of equity because investors does not respond to the increase/decrease in the company's debt, so that the value of the company is not affected by changes that occur in debt. Another study which also shows that the debt to equity ratio does not affect market value is also shown by research conducted by Christina & Dewi (2020) and Shabib-ul-hasan et al., (2015) (Rev MOU3)

Furthermore, according to Alawneh (2018) earnings per share is an important financial indicator for investors to invest in shares in a company. Investors look forward to earnings per share because it is an important factor that will affect stock prices. Earning per share is one of the indicators used to evaluate the company's activities that will affect the stock price which of course will affect the market value of equity of the company.

Research on earnings per share on market value of equity has been carried out by Al-Afeef (2020). This research was conducted on companies listed on the Amman Stock Exchange (ASE) for the period 1978-2019. This research shows that earning per share has a significant effect on the market value of equity (market capitalization). This is because earnings per share that continue to grow indicate the growth of earnings per share in listed companies can create more value for investors because it represents the amount of earnings per share that must be paid by the company and the amount of profit that must be paid to shareholders. So that the increasing company earnings from year to year will increase the market value of the company's equity. Other studies that show the positive effect of earnings per share on the market value of equity include research conducted by Jatoi et al., (2014) and Kumar (2017). In contrast to the research conducted by Alawneh (2018). Research conducted by companies listed on the Amman Stock Exchange during the period 1978-2016 shows that earnings per share do not affect market capitalization. This is because investors in financial markets do not care about earnings per share when they ask for shares, so the amount of earnings per share does not affect the market capitalization of listed companies. Research showing the same results has also been studied by Meylani (2017).

Another factor that can affect market value of equity is company size. The reason why company size is chosen in the context of market value of equity is that company size will determine what strategy the company uses in managing its assets to achieve optimal profits. Research about company size on market value has also been studied by several researchers. Research conducted by James (2020) on 34 companies cited in Nigeria from 2007 to 2016 showed that firm size had an effect on firm value although in a negative direction. The results show that the higher company size in its total assets, the lower its value in the stock market in Nigerian companies. Another study which showed the same result, which is company size negative effect on the market value of equity, was also conducted by Hirdinis (2019) and Mule et al., (2015). However, different reseulf from research by Dang et al., (2019) conducted using panel data of 1,070 observations in 214 companies listed on the Vietnamese stock market for the period 2012-2016. The results of the study show that company size has a positive effect on firm value because large companies are considered to have large company values and have stability

in their company assets. Research by Agham et al., (2018) also shows the results that company size has a significant effect on market value (Rev MOU4).

Investors as part of the stakeholders in the company assess the company based on that high intellectual capital can improve company performance. The company's performance that can be improved by the presence of good intellectual capital can be seen from the company's financial performance, such as the management of the debt to equity ratio and earnings per share as well as the management of total assets to increase the market value of equity. Confidence that is supported by good intellectual capital in the management of this company encourages investors to trade their shares which will then increase the market value of shares in the company and the value of the company (Savitri et al., 2020). Researchers suspect intellectual capital can moderate the relationship between debt to equity ratio, earnings per share, and company size to market value of equity considering that intellectual capital measurement is done objectively to assess business success and show the company's ability to create value (value creation). Based on the above background, the authors want to examine the effect of the variable debt to equity ratio, earnings per share, and company size on market value of equity where intellectual capital is used as a moderating variable.

LITERATURE REVIEW

Signaling theory

The study of various matters related to investment and stocks cannot be separated from the scope of Signaling Theory. Signaling Theory is a theory put forward by Ross (1977), in this theory it is argued that company executives will have better information and tend to provide this information to potential investors. Signaling theory states that a company can get a positive signal if there are several important things in the company, such as increasing dividends and buying back shares by investors. This signal indicates that the company has positive growth and development prospects and can provide increased profits for investors (Wronska & Bukalska, 2014).

Signaling Theory takes advantage of investors' need for accurate information about the condition of the company as a basis for making investment decisions. This information can be related to the company's historical data in the past, a picture of the current state of the company or the company's prospects in the future. Companies that have a positive signal will make investors feel confident to invest in the company. Conversely, if investors catch negative signals from the company, investors will tend to reconsider their investment decisions. Signals owned by the company can ultimately have an impact on changes in stock trading volume (Hartono, 2013) (Rev MOU5).

Resource-based theory

Barney et al., (2001) explained that resources based theory is the basis of competitive advantage which mainly lies in a set of tangible or intangible assets of the company. Barney explained that according to the view of resources based theory, companies will excel in business competition and obtain good financial performance by owning, controlling and utilizing important strategic assets (tangible and intangible assets).

Market value of equity (MVE)

Shea (2019) explains that market value of equity or market capitalization is the total value of all company shares. The market value of equity is obtained by multiplying the closing price of the company's shares by the number of outstanding shares.

Debt to equity ratio (DER).

According to Kasmir (2016), debt to equity ratio is the ratio used to measure the extent to which the company's assets are financed with debt. Debt to equity ratio compares the company's total

liabilities to the equity of its shareholders and can be used to evaluate how much leverage the company used.

Earning per share (EPS)

Earning Per Share (EPS) according to Kasmir (2016) is a "ratio to measure the success of management in achieving profits for shareholders." So, it is concluded that earnings per share is a ratio that shows the amount of profit earned from each existing share.

Company size

According to Brigham & Houston (2014) company size is a measure of company size which is indicated or assessed by total assets, total sales, total profits, tax expenses and others.

Intellectual Capital

Intellectual Capital according to Pulic (1988) is a concept that can provide new knowledge-based resources and describe intangible assets which, if used optimally, enable companies to carry out their strategies effectively and efficiently.

Hypothesis Development

Debt to equity ratio to market value of equity

Companies that increase the value of debt can be seen as companies that are confident in the company's prospects in the future and will increasingly encourage investors to invest because when the company's profitability increases, the company's market value of equity will eventually increase. When a company increases the amount of debt it has, the market value of equity also increases. With the assumption that if a company wants to increase its market value of equity, the company must increase the amount of debt it has (Shea, 2019). Based on the signaling theory view put forward by Ross (1977) that company executives will tend to provide information to potential investors. It can be said that when the debt to equity ratio of the company shows a high or low value, it will affect the perception of investors to invest through the signals given by the company so that changes in the debt to equity ratio will affect the market value of the company's own equity. Research conducted by Shea (2019) and Uzliawati et al., (2018) states that the debt to equity ratio has an effect on the market value of equity.

H1: Debt to equity ratio affects market value of equity

Earnings per Share and Market Value of Equity

Earnings per share is a very important measure of a company's profitability and in fundamental analysis, earnings per share is the only criterion that isolates net income to see how much investors get by investing in the company. Earnings per share that continues to grow shows the growth of earnings per share and the company creates value for investors (Al-Afeef, 2020). Signaling theory by Ross (1977) indicates that organizations will try to show signals in the form of positive information to potential investors through disclosure in their company's financial statements. Previous research has shown that earnings per share have an effect on firm value with market value of equity indicators (Al-Afeef, 2020; JATOI et al., 2014; Kumar, 2017).

H2: Earning per share affects market value of equity

Company Size and Market Value of Equity

Company size was chosen in the context of market value of equity because company size will determine the strategy used by the company in managing its assets to achieve maximum profit so that it will have an impact on market value of equity owned by the company which will attract investors. In line with signaling theory, this will give a positive signal to investors thereby increasing market value of the equity. Research conducted by Agbam et al (2018), Dang et al (2019), James (2020) and Meylani (2017) shows that company size affects market value of equity.

H3 : Company size affects market value of equity

Debt to Equity Ratio and Market Value of Equity moderated by Intellectual Capital

Intellectual capital as an intangible asset owned by a company is considered capable of moderating the relationship between debt to equity ratio and market value of equity. The reason is that the greater the intellectual capital owned by the company, it will help the company to manage the level of debt that the company aims to increase investment and the smooth operation of the company. Research on intellectual capital and debt to equity ratio studied by Ameneh et al. (2015) Chang & Lee (2012) Jasor et al. (2013) Winahyu & Mimba (2018) show that intellectual capital has a positive effect on debt to equity ratio.

H4: Debt to equity ratio affects market value of equity with intellectual capital as a moderating variable

Earnings per Share and Market Value of Equity moderated by Intellectual Capital

The proper use of capital generates added value for the company in increasing earnings per share to attract investors when deciding to invest in the company. In the end, this will increase the market value of equity of the company as well. This finding is in line with the Resources Based Theory (Wernerfelt, 1986) which discusses the resources owned by the company can manage and utilize its resources. Research on intellectual capital and earnings per share has been carried out by previous researchers such as Nuryaman (2015), Onyekwelu et al. (2016), and Pirayesh et al. (2016).

H5: Earning per share affects market value of equity with intellectual capital as a moderating variable

Company Size and Market Value of Equity Moderated by Intellectual Capital

The larger the size of a company, the greater the value generated from the intellectual capital managed by the company in generating added value in the form of profitable profits, so that it has an impact on increasing investor interest in the value of the resulting shares in obtaining the market value of equity. This is in line with the theory used in this study, namely signaling theory and resource-based theory. This finding is in line with research conducted by (Buallay & Hamdan, 2019; Kamath, 2017; Mohammad & Bujang, 2019) which shows that intellectual capital affects company size.

H6: Company size has an effect on market value of equity with intellectual capital as a moderating variable

METHODS

Data

This research was conducted on manufacturing companies listed on the Indonesia Stock Exchange (IDX) during period 2017-2019. The source of data was obtained from the official IDX website, www.idx.co.id. The research sample consisted of 114 manufacturing companies listed on the IDX in 2017-2019. The sample was determined by purposive sampling method. The data analysis technique used in this research is Moderated Regression Analysis (MRA).

Variable Operational Definition and Variable Formula

(Rev MOU6)

1. Market value of equity is the dependent variable of this study. Market value of equity (MVE) is the market value of equity owned by the company. The market value of equity is the market price of a company's equity which is the multiplication of the closing price with the out standing share at the end of the year (Shea, 2019). The formula for measuring it (Shea, 2019):

Market value of equiy (MVE) = Number of Outstanding Shares x Closing Price

2. Debt Equity Ratio is a ratio used to measure the level of leverage in showing the company's ability to meet long-term obligations where the debt-to-equity ratio is based on the formula (Kasmir, 2016):

$$\text{Debt Equity Ratio (DER)} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

3. Earning per share is a ratio that shows how much the ability per share to generate profit. Earnings per share ratio is used by investors to show the company's net income per share that is ready to be distributed to shareholders with the formula (Kasmir, 2016):

$$\text{Earning per share (EPS)} = \frac{\text{Net Profit After Interest and Tax}}{\text{Number of outstanding shares}}$$

4. According to Brigham & Houston (2014) company size is a measure of the size of a company which is indicated or assessed by total assets, total sales, total profits, tax expenses and others.

$$\text{Company Size} = \text{Ln.Total Asset}$$

5. Intellectual Capital (IC) is a concept that can provide new knowledge-based resources and describe intangible assets which, when used optimally, enable companies to carry out their strategies effectively and efficiently (Pulic, 1998) states that VAIC can be measured in the following stages:

1. Value added (VA) can be calculated:

$$\text{Value added} = \text{Out} - \text{In}$$

Information:

$$\text{Out} = \text{Total sales and other income}$$

$$\text{In} = \text{Expenses and expenses (except employee expenses)}$$

2. Value Added Capital Employed (VACA)

$$\text{VACA} = \text{VA/CE}$$

Information:

$$\text{VACA} = \text{Value Added Capital Employed: ratio of VA to CE}$$

Value Added (VA): Difference between output and input

Capital Employed (CE): Available funds (equity)

3. Value Added Human Capital (VAHU)

$$\text{VAHU} = \text{VA/HC}$$

Information:

$$\text{VAHU} = \text{Value Added Human Capital}$$

Value Added (VA): Difference between output and input

Human Capital (HC): Employee Expenses

4. Structural Capital Value Added (STVA)

$$STVA = SC/VA$$

Information:

STVA = Structural Capital Value Added

Structural Capital (SC): Value Added – Human Capital

Value Added: Difference between output and input

Human Capital: Employee Expenses

5. Value Added Intellectual Capital (VAIC)

$$VAIC = VACA + VAHU + STVA$$

RESULTS

Descriptive Statistics Test Results

Table 2 Descriptive Statistical Test Results

		Minimum	Maximum	Mean	Std. Deviation
DER	Ratio	-4,940	23,920	1,207	2,1625
EPS	Ratio	-1625	5655	129	496
SIZE	Ratio	18,820	32,200	28,070	1,820
MVE (Rp, Jutaan)	Nominal	13501	1336581	1903342	90859181
IC	Ratio	-9,600	18,210	4,938	3,139

DER variable has a minimum value of -4.940 and a maximum value of 23.920. The highest debt to equity ratio variable during the 2017-2019 period is owned by PT. Tiga Pilar Sejahtera Food Tbk. On the other hand, PT. Inti Agri Resources Tbk's debt to equity ratio is the lowest during the 2017-2019 period. The earning per share variable has a minimum value of -1625.90 and the company with the lowest earnings per share is PT. Tiga Pilar Sejahtera Food Tbk and the maximum value is 5655.00 and the company with the highest earnings per share is PT. Gudang Garam Tbk. . Firm size variable has a minimum value of 18,820 and a maximum value of 32,200. PT. Indofood Sukses Makmur Tbk is a company with the largest company size among the companies studied, where its total assets reach tens of trillions of rupiah. On the other hand PT. Pratama Abadi Nusa Industri Tbk is a company with the smallest size among the companies studied, where its total assets only reach hundreds of billions of rupiah. The intellectual capital variable has a minimum value of -9,600 and a maximum value of 18,210.

Moderated Regression Analysis (MRA) Test Results

Table 3. Moderated Regression Analysis Test Results

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	8,267	1,413	5,849	0,000
DER	-,107	0,040	-2,695	0,007
EPS	0,000	0,000	0,692	0,489
SIZE	0,680	0,052	13,022	0,000
IC	0,098	0,029	3,363	0,001
DER*IC	0,006	0,002	3,176	0,002
EPS*IC	0,032	0,112	0,290	0,772
SIZE*IC	0,619	0,061	10,117	0,000

First hypothesis that examines the effect of the debt-to-equity ratio on market value of equity has a significance value of ($0.007 < 0.05$), thus the first hypothesis is accepted. Second hypothesis that examines the effect of earnings per share on market value of equity with a significance value of ($0.489 > 0.05$), the second hypothesis is rejected. The third hypothesis that examines the effect of company size on market value of equity with a significance value close to zero is ($0.000 < 0.05$), the third hypothesis is accepted.

Fourth hypothesis being tested is the effect of the debt to equity ratio moderated by intellectual capital on the market value of equity with a significance of ($0.002 < 0.05$), the fourth hypothesis is accepted. The fifth hypothesis tested is the effect of earnings per share moderated by intellectual capital on the market value of equity with a significance value ($0.772 > 0.05$), so the fifth hypothesis is rejected. The sixth hypothesis that examines the effect of company size moderated by intellectual capital on the market value of equity with a significance value close to zero ($0.000 < 0.05$), the sixth hypothesis is accepted.

Robustness Test Results

Table 4 Robustness Test Results

Predictor	Basic and Chemical Industry		Various Industries		Industry of Consumer Goods	
	t	Sig.	t	Sig.	t	Sig.
(Constant)	5.948	0.000	-0.391	0.697	3.475	0.001
DER	-2.472	0.015	-2.053	0.044	1.606	0.111
EPS	2.868	0.005	0.994	0.324	0.795	0.428
SIZE	6.597	0.000	8.918	0.000	7.485	0.000
IC	0.252	0.801	0.791	0.432	3.762	0.000
DER*IC	3.332	0.002	-2.078	0.045	2.265	0.025
EPS*IC	-1.976	0.050	0.918	0.362	-0.604	0.547
SIZE*IC	6.290	0.000	1.891	0.063	4.252	0.000
F (Sig.)	13.678 (0.000)		13.119 (0.000)		31.603 (0.000)	
R	0.660		0.775		0.790	
R ²	0.436		0.601		0.625	
Adjusted R ²	0.404		0.555		0.605	

Debt to equity ratio on basic and chemical industry sector, the results show that significance value is greater than the first model, which is 0.015. The reason for this is the tendency in the research period for the basic and chemical industry sector have a high debt to equity ratio, as well as the various industrial and consumer goods sectors. This indicates that the

higher the debt to equity ratio, the lower the market value of equity. The significance value of the earning per share variable in basic and chemical industry sector based on the research results is smaller than the first model, which is 0.005. This is because, during the research period in basic and chemical industry sector, there is a tendency to have earnings per share that have increased. The significance value obtained from company size in basic and chemical industry sector, various industries and consumer goods is consistently the same as the first model, which is 0.000. For the variable debt to equity ratio moderated by intellectual capital on market value of equity. The significance value in the basic and chemical industry sector obtained is consistent with the main model. Furthermore, an insignificant positive value was obtained in the relationship between earnings per share moderated by intellectual capital and market value of equity in the various industrial sectors and insignificant negative in basic and chemical industry sectors as well as the consumer goods sector. For company size moderated by intellectual capital on market value of equity, the significant value obtained is positive in the basic and chemical industrial sector as well as the consumer goods sector and insignificant positive in various industries sector and the significance value tends to consistently show consistency.

Thus, it can be concluded from the robustness test that was carried out that the results obtained from the test of all samples and the results of the test divided by sector showed consistent results.

DISCUSSION

This study shows that there is a negative effect of debt to equity ratio on market value of equity. The results of this study indicate that companies with large debts have a high risk of returning the cost of their debt, this gives a negative signal that will affect investor interest in investing their funds into the company, decreased investor interest will cause stock sales to decline which of course has an impact on stock prices company and the number of outstanding shares, this market value of equity are reflected in the share price and the number of shares outstanding. In line with that conveyed by Cheng & Tzeng (2011) Kurnia (2017) and Parhusip et al., (2016) whose research shows that the debt to equity ratio has a negative effect on market value different from the research conducted by Christina & Dewi (2020), Rosidi (2020) and Shabibul-hasan et al., (2015) where the results of the study show that the debt to equity ratio has no significant effect on market value.

Earning per share does not affect market value of equity. This is because investors do not pay attention to the size of the value of earnings per share owned by the company. So that the rise and fall of the value of earnings per share does not affect the market value of equity. This study is in accordance with (Alawneh, 2018) which states that earnings per share do not affect the market value of equity. However, the results of this study differ from the research conducted by Al-Afeef (2020), Jatoti et al., (2014) and Kumar (2017) which states that the earnings per share of the company affects market value of equity.

This study also shows that there is a positive effect of company size on market value of equity. Company size will be responded to by an increase in the company's share price which in turn results in an increase in the market value of equity. With the larger the size of the company, there is a tendency for more investors to pay attention to the company. This is in line with what was revealed by Meylani (2017), Agbam et al (2018), Dang et al (2019) and James (2020) where in their research they show that company size affect market value of equity different research conducted by Mule et al. (2015) and Hirdinis (2019) which show that company size has no effect on market value of equity.

Intellectual capital strengthens the negative effect of the debt to equity ratio on market value of equity in this study, indicating that well-managed intellectual capital in the company can strengthen the negative effect of the debt to equity ratio on the market value of equity. The point here is that a well-managed intellectual capital will suppress the negative influence of the

debt to equity ratio on the market value of equity. The better the intellectual capital owned, the better the company's management in managing the company's debt level, indicated by good financial management. As happened to the Steel Pipe of Indonesia Tbk company in 2017-2018, this company experienced an increase in the debt to equity ratio from 1.21 to 1.23 and this is considered to have an impact on the market value of equity owned by the company. This is indicated by the company's market value of equity which has decreased by 203 billion rupiah from 826 billion rupiah to 603 billion rupiah. This shows that when the financial ratio, namely the debt to equity ratio increases, it tends to reduce the market value of equity in the company. However, in 2019, Steel Pipe of Indonesia Tbk was able to again increase the company's market value of equity to 1,322 billion rupiah. This is due to the management of intellectual capital that is able to be managed properly by Steel Pipe of Indonesia Tbk so that the company's management is able to suppress the negative influence of the debt to equity ratio value on the company's market value of equity. This is shown by the company's ability to increase the value of the company's intellectual capital from 2017-2019. This shows that well-managed intellectual capital will be able to strengthen the market value of a company's equity even though there is a negative effect of the debt to equity ratio on the market value of equity. This study is in accordance with the research conducted by Ameneh et al. (2015) and Winahyu and Mimba (2018) where in their research it is stated that in their research period investors tend not to worry about a high debt to equity ratio because it is guaranteed by good management of intellectual capital in the company.

Intellectual capital cannot moderate the effect of earnings per share on the market value of equity. The use of intellectual capital in this period may not be done properly so that it is not able to generate added value for the company to increase its earnings per share. In addition, in the 2017-2019 period, both production and new demand continued to decline in manufacturing companies. This causes the company to reduce the number of staff and purchasing activities. There is a reduction in expenses, of course, this affects output costs which are observed to fall for the first time in only three years until September 2019. So it affects the value of intellectual capital and also earnings per share owned by the company so that intellectual capital is not able to moderate the effect of earnings per share. share of the market value of equity. In accordance with research conducted by Anuonye (2015) and Olaoye & Afolalu (2020) stated that intellectual capital does not affect the effect of earnings per share different from research conducted by Alfraih (2018) and Sadalia et al., (2019) stated that intellectual capital affects earnings per share.

Finally, this study shows that intellectual capital can strengthen the positive effect of company size on market value of equity. So that intellectual capital can moderate company size on market value of equity. This is because in this research period it shows that the interaction of company size with intellectual capital tends to increase market value of equity. This means that companies with higher intellectual capital will affect the size of company and tend to increase market value of equity. In accordance with the views of resources based theory, companies will excel in business competition and obtain good financial performance by owning, controlling and utilizing important strategic assets (tangible and intangible assets) (Buallay and Hamdan (2019), Kamath (2017) and Mohammad and Bujang (2019).

It can be seen from this research that a robustness test is carried out to see the consistency of the first test and the second test which divides the sample by sector. From the robustness test conducted, it shows that the results obtained from the test of all samples and the results of the test divided by sector show consistent results (Rev MOU8).

Suggestion

This study used annual data with a research period only 3 years, so this research is still unable to capture the dynamics of the relationship between variables over time. For this reason, the author

suggests increasing the length of observation time, so that research can better capture the consistency of the relationship between variables. For investors, they must consider the intellectual capital managed by the company's management, so that they can not only assess the company from its financial condition, but also can see governance in terms of intangible assets in the form of intellectual capital owned by company employees in managing company finances. The company's management can begin to consider adding an intellectual capital statement in the annual report. Intellectual capital statement is a complex report that combines numbers, narratives of the company's knowledge and visualizations that can be in the form of sketches that illustrate the work of the company's intellectual capital. Because there are still very few companies that are statements of intellectual capital, company management has begun to pay attention/consider to this report in the annual financial statements. So that intellectual capital reporting can be used as additional financial information in reporting. With the researcher adding this intellectual capital statement, investors can more easily identify the challenges of management knowledge in the form of management efforts for business development and conditions owned by the company. Suggestions for the future may be to use other variables such as good corporate governance, free cash flow and growth. Then to measure intellectuality, it might be possible to consider using other methods besides VAIC such as Scandia Navigator and Calculated Intangible Value (Rev MOU9).

REFERENCES

- Agbam, A. S., Anyamaobi, C., & Okon, E. O. (2018). Firm size, book to market equity and the stock returns: analysis of nigerian stock market. *World Journal of Finance and Investment Research*, 3(1), 46-79. **Error! Hyperlink reference not valid.**
- Al-Afeef, M. A. M. (2020). Factors affecting market capitalization: A practical study ase 1978-2019. *International Journal of Scientific and Technology Research*, 9(3), 7049-7053. <https://www.ijstr.org/paper-references.php?ref=IJSTR-0320-32817>
- Alawneh, A. (2018). Dividends, net income after taxes and earnings per share and their impact on the market capitalization of listed companies amman stock exchange during the period 1978-2016. *International Journal of Economics and Finance*, 10(10), 69-84. <https://doi.org/10.5539/ijef.v10n10p69>
- Alfraih, M. M. (2018). Intellectual capital reporting and its relation to market and financial performance. *International Journal of Ethics and Systems*, 34(3), 266-281. <https://doi.org/10.1108/IJOES-02-2017-0034>
- Ameneh, Z., Shamszadeh, B., & Zarei, Z. (2014). The effect of intellectual capital on financial performance of banks listed in tehran stock exchange. *Journal of Money and Economy, Monetary and Banking Research Institute, Central Bank of the Islamic Republic of Iran*, 9(4), 49-73. <https://ideas.repec.org/a/mbr/jmonec/v9y2014i4p49-73.html>
- Anuonye, N. Ben. (2015). Intellectual capital measurement: using the earnings per share model of quoted insurance companies in nigeria. *International Business and Management*, 10(101), 88-98. <https://doi.org/10.3968/5526>
- Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625-641. <https://doi.org/10.1177/014920630102700601>
- Buallay, A., & Hamdan, A. (2019). The relationship between corporate governance and intellectual capital: The moderating role of firm size. *International Journal of Law and Management*, 61(2), 384-401. <https://doi.org/10.1108/IJLMA-02-2018-0033>

- Chang, C., & Lee, Y. (2012). Verification of the influences of intellectual capital upon organizational performance of Taiwan-listen info-electronics companies with capital structure as the moderator. *The Journal of International Management Studies*, 7(1), 80-92. [https://www.scirp.org/\(S\(vtj3fa45qm1ean45vvffcz55\)\)/reference/ReferencesPapers.aspx?ReferenceID=1927637](https://www.scirp.org/(S(vtj3fa45qm1ean45vvffcz55))/reference/ReferencesPapers.aspx?ReferenceID=1927637)
- Cheng, M.-C., & Tzeng, Z.-C. (2011). The effect of leverage on firm value and how the firm financial quality influence on this effect. *World Journal of Management*, 3(2), 30-53.
- Christina, B., & Dewi, A. (2020). The impact of current ratio , debt to equity ratio , return on assets , dividend yield , and market capitalization on stock return (Evidence from listed manufacturing companies in indonesia stock exchange). *Scientific Journal of PPI-UMK*, 7(1). <https://doi.org/10.27512/sjppi-ukm/ses/a11052020>
- Dang, H. N., Vu, V. T. T., Ngo, X. T., & Hoang, H. T. V. (2019). Study the impact of growth, firm size, capital structure, and profitability on enterprise value: evidence of enterprises in vietnam. *Journal of Corporate Accounting & Finance*, 30(1), 144-160. <https://doi.org/10.1002/jcaf.22371>
- Hirdinis, M. (2019). Capital structure and firm size on firm value moderated by profitability. *International Journal of Economics and Business Administration*, 7(1), 174-191. <https://doi.org/10.35808/ijebe/204>
- Kasmir. (2016). *Analisis laporan keuangan*. Jakarta: Raja Grafindo Persada.
- James, S. (2020). Liquidity, size and firm value: evidence from nigeria economy. *World Journal of Finance and Investment Research*, 5(1), 13-20.
- Jasor, J., Shagagi, F., & Rezazadeh, S. (2013). Impact of intellectual capital on financial performance in the pharmaceutical industry in Iran. *International Journal of Accounting and Economics Studies*, 1(1), 1-8. <https://doi.org/10.14419/ijaes.v1i1.771>
- Jatoi, M. Z., Shabir, G., Hamad, N., Iqbal, N., & Muhammad, K. (2014). A regression impact of earning per share on market value of share: a case study cement industry of pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(4), 221-227. <https://doi.org/10.6007/ijarafms/v4-i4/1323>
- Kamath, B. (2017). Determinants of intellectual capital disclosure: evidence from India. *Journal of Financial Reporting and Accounting*, 15(3), 367-391. <https://doi.org/10.1108/jfra-01-2016-0003>
- Kumar, P. (2017). Impact of earning per share and price earnings ratio on market price of share: a study on auto sector in india. *International Journal of Research*, 5(2), 113-118. <https://doi.org/10.29121/granthaalayah.v5.i2.2017.1710>
- Kurnia, D. (2017). Analisis signifikansi leverage dan kebijakan deviden terhadap nilai perusahaan. *Journal of Accounting*, 4(2), 12-21. <https://doi.org/10.30656/jak.v4i2.247>
- Machali, M. (2017). The effect of asset structure and firm size on firm value with capital structure as intervening variable. *Journal of Business & Financial Affairs*, 06(04), 4-8. <https://doi.org/10.4172/2167-0234.1000298>
- Meylani, L. (2017). Pengaruh return portfolio dan ukuran perusahaan terhadap market value equity. *Manajemen Dan Bisnis Pahrayangan*, 1(1992).
- Mohammad, H. S., & Bujang, I. (2019). Firms' size as a contingency approach in the relationships of intellectual capital, capital structure and financial performance. *International*

-
- Journal of Academic Research in Business and Social Sciences*, 9(3), 268-277.
<https://doi.org/10.6007/ijarbss/v9-i3/5676>
- Mule, R. K., Mukras, M. S., & Mutunga, N. O. (2015). Corporate size, profitability and market value: an econometric panel analysis of listed firms in Kenya. *European Scientific Journal*, 11(13), 376-396. Retrieved from <https://eujournal.org/index.php/esj/article/view/5659>
- Nuryaman. (2015). The influence of intellectual capital on the firm's value with the financial performance as intervening variable. *Procedia - Social and Behavioral Sciences*, 211(September), 292-298. <https://doi.org/10.1016/j.sbspro.2015.11.037>
- Olaoye, C. O., & Afolalu, A. B. (2020). Effect of human capital accounting on earning per share of equity owners of deposit money banks in Nigeria. *African Journal of Business Management*, 14(11), 485-497. <https://doi.org/10.5897/ajbm2020.9008>
- Onyekwelu, & Lucy, U. (2016). Effect of intellectual capital on corporate valuation of quoted pharmaceutical firms in nigeria. *International Journal of Business and Management Review*, 4, 50-59. <https://www.eajournals.org/journals/international-journal-of-business-and-management-review-ijbmr/vol-4-issue-7-september-2016/effect-intellectual-capital-corporate-valuation-quoted-pharmaceutical-firms-nigeria/>
- Parhusip, H., Topowijono, T., & Sulasmiyati, S. (2016). Pengaruh struktur modal dan profitabilitas terhadap nilai perusahaan (studi pada perusahaan makanan dan minuman yang terdaftar di bursa efek indonesia periode 2011-2014). *Jurnal Administrasi Bisnis S1 Universitas Brawijaya*, 37(2), 163-172.
- Rahmana, D., Rosidi, & Farhan, D. (2020). Pengaruh debt to equity ratio dan return on assets terhadap market value of equity dengan memperhatikan financial distress sebagai variabel moderasi. *Journal Of Economics and Management*, 21(3), 26-40.
<http://114.5.90.38/ejournal/index.php/JEM/article/view/272>
- Pirayesh, R., & Khojasteh, S.Z. (2016). The relationship between intellectual capital and marketing and financial performance of banks operating in the Tehran Stock Exchange, during 2009-2014. *International journal of humanities and social sciences*, 1132-1144.
<https://www.semanticscholar.org/paper/The-relationship-between-intellectual-capital-and-Pirayesh-Khojasteh/5c27490b43f0d891d071b53f7e70668fad98d859>
- Ross, S. A. (1977). Determination of financial structure: the incentive-signalling approach. *Bell J Econ*, 8(1), 23-40. <https://doi.org/10.2307/3003485>
- Sadalia, I., Daulay, I. E., Marlina, L., & Muda, I. (2019). The influence of intellectual capital towards financial performance with brand value as an intervening variable. *Quality - Access to Success*, 20(168), 79-85.
https://www.calitatea.ro/assets/arhiva/2019/QAS_Vol.20_No.168_Feb.2019.pdf
- Savitri, E., Gumanti, T. A., & Yulinda, N. (2020). Enterprise risk-based management disclosures and firm value of Indonesian finance companies. *Problems and Perspectives in Management*, 18(4), 414-422. [https://doi.org/10.21511/ppm.18\(4\).2020.33](https://doi.org/10.21511/ppm.18(4).2020.33)
- Shabib-ul-hasan, S., Farooq, S., & Muddassir, M. (2015). Stock returns indicators : debt to equity , book to market , firm size and sales to price. *Journal of Poverty, Investment and Development*, 16, 25-32. <https://iiste.org/Journals/index.php/JPID/article/view/25968>
- Shea, R. (2019). Tracking market capitalization in companies the standards of success.
<https://digital.sandiego.edu/osp-researchweek/2019/ccurc/43>
- Silalahi, S. A. F. (2014). Kondisi industri manufaktur indonesia dalam menghadapi globalisasi. *Jurnal Ekonomi Dan Kebijakan Publik*, 5(1), 1-13.
<https://jurnal.dpr.go.id/index.php/ekp/article/view/149>

- Sumangala, J. K. (2013). Finance impact of book value on market value of an equity share – an empirical study in indian capital market. *Global research analysis*, 2277, 109-111.
- Uzliawati, L., Yuliana, A., Januarsi, Y., & Santoso, M. I. (2018). Optimisation of capital structure and firm value. *European research studies journal*, 21(2), 705-713.
<https://doi.org/10.35808/ersj/1034>
- Winahyu, N. W. R., & Mimba, N. P. S. H. (2018). Intellectual capital sebagai pemoderasi pengaruh debt to equity ratio dan ukuran perusahaan pada profitabilitas. *E-Jurnal Akuntansi*, 23(1), 734-760. <https://doi.org/10.24843/eja.2018.v23.i01.p28>
- Yemi, A. E., & Seriki, A. I. (2018). Retained earnings and firms' market value: nigeria experience. *International Journal of Business & Economic Development*, 06(02), 12-28.
<https://doi.org/10.24052/ijbed/v06nu02/art-02>