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Investment Decisions of Energy Sector Companies on the Indonesia Stock Exchange: Theory and Evidence

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ABSTRACT

This paper focused on strategic corporate financial decisions regarding investments to increase firm value moderated by profitability in emerging markets. The analytical method used was panel data analysis, with a total number of observations of 260 energy sector companies on the Indonesia Stock Exchange in 2019-2021. The results of the Chow Test, Hausman Test, and Lagrange Multiplier Test show the selected random effect model. The model shows that there is an effect of investment decisions on firm value in a positive direction and the moderating role of profitability strengthens this effect. The results of the robustness check show that the research model is still consistent with previous findings. Investment decisions have an effect on firm value, and profitability moderates this effect, both in the assumption of changes in control variables or model estimation using quantile regression. Our findings are in line with the idea of signaling theory that information on the company's investment decisions is a positive signal that the company has good growth opportunities or prospects so that it will increase the firm value and ultimately have an impact on the prosperity of shareholders. Furthermore, profitability strengthens the positive signal of the company's reputation in the eyes of investors.

Keywords: Emerging Market, Firm Value, Investment Decision, Profitability, Signaling Theory
JEL Classifications: G30, G32, Q43

1. INTRODUCTION

Increasing firm value through investment decisions has been a topic of extensive research and has been the subject of debate in recent decades (Mahirun and Kushermanto, 2018; Mousa et al., 2021; Triani and Tarmidi, 2020). This is due to the increase in the role of corporate investment decision-making to maximize shareholder wealth by optimizing firm value, particularly in developing countries (Hidayat et al., 2019; Nouman et al., 2022; Salehi et al., 2022). Previous research indicates an increase in firm value through corporate social responsibility (Butt et al., 2020; Hatane et al., 2021; Dewi et al., 2021), funding decisions (Uzliawati et al., 2018; Luu, 2021; Lawson and Osaremwinda, 2019), dividend policy (Trinh et al., 2022; Ali, 2022), or other corporate actions, such as mergers and acquisitions (Gao and Bao, 2022; Wang et al., 2021), as well as stock splits (Hendra et al., 2020; Podgórski and Pasierbek, 2020). Investment decision-making is very essential, especially in projects that provide a return above the risk-adjusted cost of capital (Yaghoubi and Keefe, 2022) or investment in assets, so that making the right investment decisions may increase firm value (Faisal et al., 2021; Gu and Zhang, 2022).

The effect of investment decisions on firm value is being debated. However, we will first explain the theory that forms the basis of this study, which is the signaling theory. The signaling theory was first proposed by Spence (1973) and developed as well as became a reference for researchers in various disciplines, one of which is financial management. This theory involves two parties; we illustrate that management as the signaler, and investors as the signal receiver. The management tries to provide a signal in the form of relevant information so that it is used by the investor, then the investor will adjust his decision according to his understanding of the signal. In this study, the signal is in

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the form of investment decision information. Information on the company's investment decisions is a signal that the company has good growth opportunities or prospects so that it is expected to increase share prices and the prosperity of shareholders. Several studies have proven that investment decisions are a positive signal in improving the company, such as in a study conducted by Al Daas et al. (2020) which explains that one of the focuses of the driver of firm value in Jordan is related to investment decisions. This is also similar to the findings by Pramartha et al. (2020) that investment decisions have a positive effect on firm value but with a different object, which is BUMN companies listed on the Indonesia Stock Exchange. Finally, findings by Salehi et al. (2022) found that firm value is reflected in the company's stock price. When stock price information improves, capital allocation is carried out more efficiently, increasing company investment efficiency, and has an impact on the increasing firm value on the Tehran Stock Exchange. This is different from the findings of the panel of researchers who found that investment decisions did not give a signal to firm value, such as the findings of Triani and Tarmidi (2020) that investment decisions in the property and real estate group of companies on the Indonesia Stock Exchange did not give a signal to firm value. Other findings by Komala et al. (2019) and Bon and Hartoko (2022) found something similar but in the manufacturing sector companies.

Energy is one of the industrial fields that has a significant effect on the economic output of a country (Komarova et al., 2022). Developed countries are the highest energy consumers in the world, but developing countries in Asia with relatively high economic growth rates have also seen significant increases in energy consumption in recent decades (Ahmad and Zhang, 2020). Indonesia, which is one of the developing countries in Southeast Asia, was at the highest rank in terms of energy consumption in 2019 (International Energy Agency, 2022). The relatively high demand and availability of energy raw materials in Indonesia is the driving force behind the establishment of companies in the energy sector. The Indonesia Stock Exchange recorded at least more than 70 companies engaged in the energy sector. A large number of energy companies certainly contribute to the performance of the Indonesian Stock Exchange.

Based on the inconsistency of the research findings with the previously stated theory, we will fill the gap by expanding the scope of the research so that several new aspects will be raised: (1) including profitability as a moderating variable; (2) including control variables of leverage, size, and age; (3) exploring energy sector companies in one of the developing countries in the Southeast Asia region, specifically Indonesia. To support this novelty, the data analysis method was based on a panel data regression analysis approach, and the model robustness testing was done by replacing control variables and applying quantile regression model estimates.

2. HYPOTHESIS DEVELOPMENT

One of the functions of financial management related to the allocation of funds, both internal and external to the company, is investment decisions. Investment decisions are a determinant of increasing firm value because the company's goals will be achieved through its business activities (Fama, 1978). The main aspect of investment decisions is the capital investment (Huang et al., 2019). The capital allocation strategy in the investment proposal should be correlated between return and risk which is then evaluated to obtain a high rate of return with a certain risk or vice versa (Koch-Medina et al., 2021). Good asset management on investment decisions will have an impact on company growth and increase company profits (Sun and Chen, 2017) as well as firm value. The actions taken by the company's management are usually a guide for investors in viewing the company's prospects in the future. In this case, investment spending provides a positive signal about the company's growth so that it can increase firm value. This statement is supported by several studies which have found that investment decisions have an effect on firm value (Al Daas et al., 2020; Pramartha et al., 2020; Susanti et al., 2019). Thus, we propose this hypothesis [1]:

H1. Investment decisions affect firm value

Profitability shows the company's ability to generate profits (Alarussi and Alhaderi, 2018). Profit is the level of net income that can be achieved by the company when carrying out its operations. One of the factors to assess whether the company's performance is good or not can be seen from profitability (Aryantini and Jumono, 2021). The high profitability achieved will give an indication of good company prospects (Yondrichs et al., 2021), so that it becomes a good signal for investors to increase their share ownership. This has an impact on increasing stock demand and stock prices (Amarudin et al., 2019; Jihadi et al., 2021). Increased profitability affects the company's internal funding sources (Syamsudin et al., 2020). Adequate internal funding sources can reduce the level of excess debt and become a company's financing reserve in investment (Jarallah et al., 2019). The better consideration of investment decisions, supported by the achievement of optimal profitability, will strengthen the positive signal of the company's reputation in the eyes of investors, thus generating investor interest in investing and ultimately increasing firm value and creating prosperity for potential investors. Based on the discussion, we propose the following hypothesis [2]:

H2. Profitability moderates the effect of investment decisions on firm value

3. METHODS

The population in this study were energy sector companies listed on the Indonesia Stock Exchange from 2019 to 2021. We excluded companies in the energy sector that did not have complete financial data during the study period, so our sample size was 77 companies with a total assessment of 260 observations. Although our study period was short (a 3-year period), it did not affect our estimation model. This study consisted of four kinds of variables, including an independent variable, a dependent variable, a moderating variable, and control variables. The independent variable is an investment decision, the dependent variable is firm value, the moderating variable is profitability, and the control variables are leverage, firm size, and firm age. The complete list of variable definitions is presented in Table 1.

Table 1: Variable definition

Variable	Definition	Formula	Source
Firm Value	Firm value is an investor's perception of the company, which is often associated with stock prices.	$Price\ to\ Book\ Value\ (PBV) = \frac{Market\ Price\ per\ Share}{Book\ Value\ per\ Share}$	(Hirdinis, 2019; Harahap et al., 2020; Devita et al., 2021)
Investment Decision	The price-to-earnings ratio is a valuation ratio that compares a company's current share price to its earnings per share.	$Price\ to\ Earnings\ Ratio\ (PER) = \frac{Market\ Price\ per\ Share}{Earnings\ per\ Share}$	(Kadim et al., 2020; Tiurmauli et al., 2018; Triani and Tarmidi, 2020)
Profitability	Profitability is a ratio that measures the company's ability to generate profits by using the resources owned by the company, such as assets, capital, or company sales.	$Return\ on\ Equity\ (ROE) = \frac{Net\ Income}{Shareholder's\ Equity}$	(Alghifari et al., 2022; Chabachib et al., 2019; Setiawanta et al., 2021)
Leverage	Leverage is the use of debt to buy more assets and is employed to increase the return on equity.	$Debt\ toEquity\ (DER) = \frac{Total\ Debt}{Total\ Equity}$	(Setiawanta et al., 2021; Alzubi and Bani-Hani, 2021)
Size	The number of total assets owned by the company.	Ln Total Aset	(Diantimala et al., 2021; Gunardi et al., 2020; Solikhah et al., 2022)
Age	The length of time the company is able to carry out its operational activities so that it can maintain a going concern.	Age of firms = Year t – year 0 (establishment)	(Nguyen and Nguyen, 2020; Hossain, 2021)

A verification method is used in this study, so it is necessary to test the hypotheses with the aim of testing the effect of investment decisions on firm value with a moderating effect on profitability and controlled by leverage, firm size, and firm age. The research data use panel data, which is a combination of times series and cross-section data. Based on that, it produces the following panel data regression equation model:

$$Firm\ Value = \beta_1 + \beta_2 Investment\ Decision_{it} + \beta_3 Profitability_{it} + \beta_4 Investment\ Decision_{it} * Profitability_{it} + \beta_5 Leverage_{it} + \beta_6 Size_{it} + \beta_7 Age_{it} + u_{it}$$

The panel data regression analysis approach uses the common effect model (CEM), fixed effect model (FEM), and random effect model (REM). Furthermore, to determine the best model, the Chow Test, Hausman Test, and Lagrange Multiplier Test were carried out. The Chow Test was conducted to determine the model between the CEM and the FEM. The Hausman Test was conducted to determine the model between the FEM and the REM. The Lagrange Multiplier Test was conducted to determine the model between the CEM and the REM. Next, we tested the classical assumptions on the selected model. The study used 2 classical assumption tests, including the multicollinearity test and the heteroscedasticity test. The other two tests, normality and auto-correlation, were not carried out because the samples used were more than 40 (Ghasemi and Zahediasl, 2012), and the autocorrelation problem was solved by using the Generalized Least Square (GLS) model (Gujarati and Porter, 2008).

4. RESULTS AND DISCUSSION

Table 2 presents a summary of the mean statistics for the variables in the estimation model in the energy sector. Focusing on the key variables, the mean firm value (PBV) is 2.7314 times. The highest firm value occurred in 2020 at 3.8601 times and the lowest firm value in 2021 at 1.6441 times. Then, the mean investment decisions (PER) is 42.9041 times. The lowest PER occurred in 2019 at 8.42015 times and the highest PER is in 2020 at 91.8574 times. The mean profitability (ROE) is 0.1002 or 10.02%. The highest ROE value occurred in 2021 at 0.1644 or 16.44% and the lowest is in 2019 at −0.0069 or −0.69%. Furthermore, the mean leverage (DER) shows a value of 1.2944 or 129.44%, the lowest DER occurs in 2021 at 0.4534 or 45.34%, and the highest DER is in 2020 at 2.1387 or 213.87%. Next, the mean firm size (Ln Total Assets) in the non-financial sector is 7.9837, the lowest firm size value occurred in 2019 at 8.0850 and the highest firm size value in 2020 is 7.9606. Finally, the mean firm age is 13.57 years each year.

Table 2: Descriptive statistics (mean values)

Variables	2019	2020	2021	Mean
Firm value	2.6900	3.8601	1.6441	2.7314
Investment decision	8.4205	91.8574	28.4346	42.9041
Profitability	−0.0069	0.1432	0.1644	0.1002
Leverage	1.2912	2.1387	0.4534	1.2944
Size	8.0850	7.9606	7.9053	7.9837
Age	13.3636	13.3623	13.9714	13.5658

Table 3 presents the correlation matrix for the variables in the estimation model. The correlations between the explanatory variables and firm performance provide an initial view of their univariate relationship. The correlation coefficient between the explanatory variables and the mean of our firm value is weak. This can be seen from the value of each correlation, specifically, an investment decision of 0.2526, profitability of −0.0273, leverage of 0.7662, firm size of −0.1042, and firm age of 0.0032.

The results of the panel data test are shown in Table 4. The model specification test is carried out first to decide which model is feasible to use. The results of the Chow Test show that the CEM

Table 3: Correlation matrix

Variables	Correlation matrix					
	1	2	3	4	5	6
Firm value	1.0000					
Investment decision	0.2526	1.0000				
Profitability	−0.0273	−0.0149	1.0000			
Leverage	0.7662	0.0453	−0.2584	1.0000		
Size	−0.1042	−0.0701	−0.0123	0.1019	1.0000	
Age	0.0032	−0.0528	0.0457	−0.0152	−0.0518	1.0000

Table 4: Panel data results

Variables	Outcome variable: PBV		
	CEM	FEM	REM
Constant	7.7197*** (1.7520)	6.5311*** (1.6409)	9.2265*** (2.2042)
PER	0.0045*** (0.0009)	0.0045*** (0.0007)	0.0023*** (0.0006)
ROE	6.6216*** (0.7542)	7.5617*** (0.7229)	7.1677*** (0.5296)
PER×ROE	0.5421 (0.0135)	0.1394*** (0,0165)	0.1300*** (0.0124)
DER	1.4178*** (0.0678)	1.4530*** (0.0575)	1.5676*** (0.0435)
Size	−1.0038*** (0.2058)	−0.9058*** (0.1917)	−1.1750*** (0.2650)
Age	0.0236 (0.0318)	0.0436 (0.0299)	0.0082 (0.0349)
R^2	0.7575	0.8262	0.8753
Adjusted R^2	0.7502	0.8192	0.8715
F-test	101.6160***	11.4989***	543.2116***
Chow-test for FEM	-	0.9427	-
Hausman-test for REM	-	-	40.4369***
Lagrange multiplier-test for CEM	55.9585***	-	-
Multicollinearity test	-	-	No
Heteroscedasticity test	-	-	No

***Indicates the significance level of 1% respectively. The figures stated represent the coefficient values of the variables. On the other hand, the values in the parentheses stand for the values of the standard error. CEM: Common effect model, FEM: Fixed effect model, REM: Random effect model, PER: Price to earnings ratio, ROE: Return on equity, PBV: Price to book value, DER: Debt to equity

is the most feasible model, while the results of the Hausman Test show the FEM is the most feasible one. Therefore, the Lagrange Multiplier Test was carried out and the REM was selected as the best model. Next, we tested the classical assumption on the selected model, which is the REM. The study used 2 classical assumption tests, the multicollinearity test and the heteroscedasticity test (Glejser test). The results of the multicollinearity test show that the correlation between the explanatory variables is lower than 0.8, indicating the absence of multicollinearity (Table 3). The Glejser test showed that there is no heteroscedasticity symptom in the regression model in the REM ($F = 1.153$; $P > 0.05$).

Based on the results of the REM in Table 4, it shows that all variables, including investment decisions, profitability, firm size, firm age, and the interaction between the investment decision and profitability have an effect on firm value (F-Test = 543.2116; $P < 0.01$). The value of R Square is 0.8753 which means that the model has a good prediction. In hypothesis 1 (H1), we hypothesize a significant effect of investment decisions on firm value, and our results support it. The results on REM reveal a positive relationship between investment decisions (PER) and firm value (PBV) ($\beta = 0.0023$; SE = 0.0006; $P < 0.01$). This finding is in accordance with the signaling theory, in which information on the company's investment decisions is a positive signal that the company has good growth opportunities or prospects so that it will increase firm value and have an impact on the prosperity of shareholders. This study is in line with Al Daas et al. (2020), Pramartha et al. (2020), Susanti et al. (2019), Afşar and Karaçayir (2020), and Juwinta et al. (2021).

For the moderating effect (H2), the interaction shows a significant effect on firm value. The REM results report a significant positive moderating effect of profitability on the relationship between investment decisions (PER) and firm value (PBV) ($\beta = 0.1300$; SE = 0.0124; $P < 0.01$). The findings show that the company is indicated to have good performance and promising prospects, thus strengthening the positive signal of the company's reputation in the eyes of investors, in strengthening the effect of investment decisions on firm value. This study is in line with signaling theory and a study conducted by Syamsudin et al. (2020).

We performed a robustness check to ensure the reliability of our statistical conclusions. Our first model of robustness check is to replace the company's internal control variables, such as leverage, size, and age of the company with the company's external control variables, including inflation and GDP. The results of the robustness check based on Table 5 show that the REM is the most feasible one. The results of the classical assumption test show that there is no multicollinearity problem, but there is a heteroscedasticity problem, This problem is not crucial because the selected model is the REM with GLS (Gujarati and Porter, 2008). The findings show that the investment decision has a significant effect on firm value ($\beta = 0.0051$; SE = 0.0016; $P < 0.01$), and profitability effects moderate the effect of investment decisions on firm value ($\beta = 0.2030$; SE = 0.0333; $P < 0.01$). The robustness check of our second model used a different estimation model, which is the quantile regression model. The results in Table 5 show that the investment decision proxied by PER still consistently affect firm value in a positive direction ($\beta = 0.0045$; SE = 0.0124; $P < 0.01$)

Table 5: Robustness check

Variables	Outcome variable: PBV			
	CEM	FEM	REM	Quantile regression
Constant	−3.9563 (3.1643)	−5.2284 (4.4690)	−3.9563 (4.2740)	3.2768*** (0.5429)
PER	0.0051** (0.0021)	0.0023 (0.0021)	0.0051*** (0.0016)	0.0045*** (0.0002)
ROE	6.4628*** (1.2174)	8.2507*** (1.9840)	6.4628*** (1.4191)	4.9952*** (0.2259)
PER × ROE	0.2030*** (0.0349)	0.2335*** (0.0446)	0.2030*** (0.0333)	0.0946*** (0.0054)
Inflation	345.8392** (169.0249)	416.3520* (237.9579)	345.8392 (227.1456)	-
GDP	−0.6323* (0.3408)	−0.7502** (0.3464)	−0.6323* (0.3321)	-
DER	-	-	-	0.0946*** (0.0054)
Size	-	-	-	0.5886*** (0.0203)
Age	-	-	-	−0.4070*** (0.0616)
R^2	0.2275	0.4749	0.2275	0.1637
Adjusted R^2	0.2082	0.1319	0.2082	0.1386
F-test	11.7826***	11.4989***	11.7826***	-
Chow-test for FEM	-	79.5237	–	-
Hausman-test for REM	-	-	7.0351	-
Multicollinearity test	-	-	No	No
Heteroscedasticity test	-	-	Yes	-
Quasi-LR statistic	-	-	-	127.9463***
Quantile slope equality test	-	-	-	200005***
Symmetric quantiles test	-	-	-	25369.61***

***, **, *Indicate the significance level of 1%, 5%, and 10%, respectively. The figures stated represent the coefficient values of the variables. On the other hand, the values in the parentheses stand for the values of the standard error. CEM: Common effect model, FEM: Fixed effect model, REM: Random effect model, PER: Price to earnings ratio, ROE: Return on equity, PBV: Price to book value, DER: Debt to equity, GDP: Gross domestic product, LR: Likelihood ratio

and profitability as proxied by ROE moderates the positive effect ($\beta = 0.0946$; SE = 0.0054; $P < 0.01$). The robustness check results imply that the model is formed by replacing the company's external control variables, including inflation and GDP, and the estimation model using the quantile regression model. The results show that investment decisions consistently have an effect on firm value and profitability still strengthens the relationship. This means that the model formed in our study has been tested for durability.

Our findings confirm our first hypothesis about the effect of investment decisions on firm value. We theorize that our findings are in line with the concept of signaling theory. The signaler, in this case, the company management, provides information related to the investment decision and is captured by the signal receiver, particularly, the investor, as positive information because the strategic effect of this decision concerns the company's growth and the company sustainability in the future. The composition of the company's asset growth on the investment decision according to stakeholders, especially investors owned by the company can affect the company's condition so that it is considered to have an impact on changes in firm value, especially as measured by the price earning ratio.

The results of this study are different from the findings of Triani and Tarmidi (2020), Komala et al. (2019), and Bon and Hartoko (2022) that the investment decision does not affect firm value in emerging markets. This situation implies that increasing investment decisions on shareholders or investors from the external side of the company does not always affect firm value. This is because the investment decision on firm value might be caused by factors of future uncertainty. By expanding the scope of the companies studied, particularly, the energy sector, our findings indicate the difference that the investment decision affects firm value in developing countries. Companies that make strategic decisions in investment are allegedly able to increase investor confidence in companies, thus company management must understand the importance of investation decisions.

We then confirm our second hypothesis that profitability moderates the effect of the investment decision on firm value. Investors anticipate that high corporate efficiency increases shareholder returns and supports a larger stock investment portfolio. When stock investment portfolios grow higher, the firm value may increase (Akhmadi and Januarsi, 2021). Profitability becomes an important indicator of company performance, in which higher profitability gives investors and shareholders a positive profile of company achievements and increases their loyalty (Lau and Mahat, 2019). Therefore, they keep their money invested in the company's shares, add or buy more shares, and increase the share price and value. Thus, the increase or high ability of the company to generate profits will strengthen the positive signal on the effect of the investment decision on firm value, and increase investor and shareholder confidence.

We carry out a series of robustness checks by re-estimating the model under several assumptions, including using the company's external control variables, consisting of inflation and GDP, and estimating the model using quantile regression in the initial model. The results show that the investment decision has an effect on firm value, and the interaction effect of profitability is also still consistent in moderating this effect. It can be considered that our research model has proven its resilience, but it is only limited to energy sector companies on the Indonesia Stock Exchange.

5. CONCLUSION

This study attempts to analyze the impact of strategic decisions on investment to increase firm value moderated by profitability in energy sector companies in emerging markets. We provide at least three additional insights into the body of knowledge and the empirical literature. First, our results show that the investment decision is useful for increasing firm value. This is in accordance

with previous studies, such as those by Al Daas et al. (2020), Pramartha et al. (2020), Susanti et al. (2019), Afşar and Karaçayir (2020), and Juwinta et al. (2021). Second, our results confirm the signaling theory in the context of financial management that the company's investment decision information is a positive signal, in which companies that have good growth opportunities or prospects will increase firm value. Third, we find that profitability strengthens the positive signal of the effect of investment decisions on firm value.

In summary, our findings imply that investment decision is important financial decisions for companies in increasing firm value. To make it more successful, companies must be able to optimize fund management for investment by looking at investment proposals that have a high rate of return with certain risks or vice versa. In relation to the national industry, the government cannot ignore the energy industry sector which has great resources and contributions to economic development and growth in Indonesia. Therefore, investors should be able to seize opportunities to invest in energy sector companies by taking into account the factors that can increase firm value as in our study.

Finally, we recognize the limitations of this study, because only Indonesian companies are used to analyze how investment decisions work. This issue should encourage future researchers to investigate and compare the results obtained in this study with those of other developing countries plus the research time horizon is quite long. Further studies may analyze financial strategic decisions through investments in other sector companies because they have different characteristics, which will be interesting to study. Moreover, in line with the results of this study, future studies can focus on funding decisions, dividend policies, mergers, acquisitions, or other corporate actions.

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REFERENCES

Afşar, A., Karaçayir, E. (2020), Effect of investment and financing decisions on firm value; Example of bist industrial index. Usak University Journal of Social Sciences, 13(2), 13-24.

Ahmad, T., Zhang, D. (2020), A critical review of comparative global historical energy consumption and future demand: The story told so far. Energy Reports, 6, 1973-1991.

Akhmadi, A., Januarsi, Y. (2021), Profitability and firm value: Does dividend policy matter for Indonesian sustainable and responsible investment (SRI)-KEHATI listed firms? Economies, 9(4), 9040163.

Al Daas, A., Ahmad, M.U., Mohammad, S.J. (2020), The dynamics between dividends, financing and investments: Evidence from Jordanian companies. International Journal of Financial Research, 11(4), 231-240.

Alarussi, A.S., Alhaderi, S.M. (2018), Factors affecting profitability in Malaysia. Journal of Economic Studies, 45(3), 442-458.

Alghifari, E.S., Hermawan, A., Gunardi, A., Rahayu, A., Wibowo, L.A. (2022), Corporate financial strategy in an emerging market: Evidence from Indonesia. Journal of Risk and FInancial Management, 15(8), 362.

Ali, H. (2022). Corporate dividend policy in the time of COVID-19: Evidence from the G-12 countries. Finance Research Letters, 46, 102493.

Alzubi, K., Bani-Hani, A. (2021), Determinants of debt-to-equity and its impact on the performance of industrial companies listed on amman stock exchange. Journal of Governance and Regulation, 10(4 Special issue), 353-364.

Amarudin A.M., Adam, M., Hamdan, U., Hanafi, A. (2019), Effect of growth opportunity, corporate tax, and profitability toward value of firm through capital structure (listed manufacturing companies of Indonesia). Finance Theory and Practice, 23(5), 18-29.

Aryantini, S., Jumono, S. (2021), Profitability and value of firm: An evidence from manufacturing industry in Indonesia. Accounting, 7(4), 735-746.

Bon, S.F., Hartoko, S. (2022), The effect of dividend policy, investment decision, leverage, profitability, and firm size on firm value. European Journal of Business and Management, 7(3), 7-13.

Butt, A. A., Shahzad, A., and Ahmad, J. (2020), Impact of CSR on firm value: The moderating role of corporate governance. Indonesian Journal of Sustainability Accounting and Management,4(2), 145-163.

Chabachib, M., Fitriana, T.U., Hersugondo, H., Pamungkas, I.D., Udin, U. (2019), Firm value improvement strategy, corporate social responsibility, and institutional ownership. International Journal of Financial Research, 10(4), 152-163.

Devita, H., Setyadi, D., Paminto, A., Defung, F., Adhimursandi, D. (2021), Antecedents of financial performance influence on intellectual capital and firm value. Universal Journal of Accounting and Finance, 9(6), 1394-1404.

Dewi, P. P. R. A., Sudana, I. P., Badera, I. D. N., and Rasmini, N. K. (2021), The effect of CSR disclosure on firm value with profitability and leverage as moderators. Indonesian Journal of Sustainability Accounting and Management, 5(1), 113–122

Diantimala, Y., Syahnur, S., Mulyany, R., Faisal, F. (2021), Firm size sensitivity on the correlation between financing choice and firm value. Cogent Business and Management, 8(1), 1926404.

Faisal, F., Abidin, Z., Haryanto, H. (2021). Enterprise risk management (ERM) and firm value: The mediating role of investment decisions. Cogent Economics and Finance, 9(1), 2009090.

Fama, E.F. (1978), The effects of a firm's investment and financing decisions on the welfare of its security holders. The American Economic Review, 68(3), 272-284.

Gao, Z., Bao, Y. (2022), Do acquirers of mega mergers prefer to improve debt level? An investigation on mega deals and leverage change. Finance Research Letters, 47(Part B), 102780.

Ghasemi, A., Zahediasl, S. (2012), Normality tests for statistical analysis: A guide for non-statisticians. International Journal of Endocrinology and Metabolism, 10(2), 486-489.

Gu, L., Zhang, H. (2022), Stakeholder-oriented corporate investment: A catering perspective. Finance Research Letters, 48, 1-7.

Gujarati, D.N., Porter, D.C. (2008), Basic Econometrics. 5th ed. New York City: McGraw-Hill/Irwin.

Gunardi, A., Firmansyah, E.A., Widyaningsih, I.U., Rossi, M. (2020), Capital structure determinants of construction firms: Does firm size moderate the results? Montenegrin Journal of Economics, 16(2), 93-100.

Harahap, I.M., Septiania, I., Endria, E. (2020), Effect of financial performance on firms' value of cable companies in Indonesia. Accounting, 6(6), 1103-1110.

Hatane, S. E., Telim, J. H., Tjanlisan, R., Tandiono, G. A., and Tjandra, M. (2021), Corporate social responsibility performance and ownership structures adding value to Indonesia's banking sector. Indonesian Journal of Sustainability Accounting and Management, 5(1), 91-102.

Hendra, E., Handoko, B.L., Ariyanto, S. (2020), Determinants of stock splits' ex-date returns: Empirical evidence from Indonesian stock market.

Pertanika Journal of Social Sciences and Humanities, 28(2), 1539-1551.
Hidayat, R., Wahyudi, S., Muharam, H., Shaferi, I., Puspitasari, I. (2019), The improve level of firm value with liquidity, debt policy and investment in Indonesian emerging market. Revista Espacios, 40(40), 22.
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.
Hossain, M.S. (2021), A revisit of capital structure puzzle: Global evidence and analysis. International Review of Economics and Finance, 75, 657-678.
Huang, W., Liu, B., Wang, H., Yang, J. (2019), Dynamic optimal investment policy under incomplete information. North American Journal of Economics and Finance, 50, 100976.
International Energy Agency. (2022), Southeast Asia Energy Outlook 2022. Paris: International Energy Agency. Available from: https://www.iea.blob.core.windows.net/assets/e5d9b7ff-559b-4dc3-8faa-42381f80ce2e/SoutheastAsiaEnergyOutlook2022.pdf
Jarallah, S., Saleh, A.S., Salim, R. (2019), Examining pecking order versus trade-off theories of capital structure : New evidence from Japanese firms. International Journal of Finance, 24, 204-211.
Jihadi, M., Vilantika, E., Hashemi, S.M., Arifin, Z., Bachtiar, Y., Sholichah, F. (2021), The effect of liquidity, leverage, and profitability on firm value: Empirical evidence from Indonesia. Journal of Asian Finance, Economics and Business, 8(3), 423-431.
Juwinta, S., Muis, M., Pono, M. (2021), The effect of debt policy, provitability, and investment decisions on firm value using dividend policy as a moderating variable on pharmaceutical sub-sector companies in the Indonesian stock exchange. International Journal of Innovative Science and Research Technology, 6(12), 1-10.
Kadim, A., Sunardi, N., Husain, T. (2020), The modeling firm's value based on financial ratios, intellectual capital and dividend policy. Accounting, 6(5), 859-870.
Koch-Medina, P., Moreno-Bromberg, S., Ravanelli, C., Šikić, M. (2021), Revisiting optimal investment strategies of value-maximizing insurance firms. Insurance Mathematics and Economics, 99, 131-151.
Komala, P.S., Endiana, D.M., Kumalasari, P.D., Rahindayati, N.M. (2019), Pengaruh profitabilitas, solvabilitas, likuiditas, keputusan investasi dan keputusan pendanaan terhadap nilai perusahaan. KARMA, 1(1), 40-50.
Komarova, A.V., Filimonova, I.V., Kartashevich, A.A. (2022), Energy consumption of the countries in the context of economic development and energy transition. Energy Reports, 8(9), 683-690.
Lau, W.T., Mahat, F.B. (2019), Robustness of cash flow value: Investment in ASEAN. Journal of Asian Finance, Economics and Business, 6(2), 247-255.
Lawson, I.E., Osaremwinda, O.D. (2019), Capital structure and firm value of selected quoted manufacturing firms in Nigeria. Dutse Journal of Economics and Development Studies (DUJEDS), 7(2), 66-77.
Luu, D.H. (2021), The impact of capital structure on firm value : A case study in Vietnam. Journal of Asian Finance, Economics and Business, 8(5), 287-292.
Mahirun, M., Kushermanto, A. (2018), Capital structure, investment opportunity set, growth sales, firm size and firm value: R and D intensity as mediating. Quality Access to Success, 19(164), 117-122.
Mousa, M., Nosratabadi, S., Sagi, J., Mosavi, A. (2021), The effect of marketing investment on firm value and systematic risk. Journal of Open Innovation Technology, Market, and Complexity, 7(1), 64.
Nguyen, H.T., Nguyen, A.H. (2020), The impact of capital structure on firm performance: Evidence from Vietnam. Journal of Asian Finance, Economics and Business, 7(4), 97-105.
Nouman, M., Ahmad, I., Siddiqi, M. F., Khan, F.U., Fayaz, M., Shah, I.A. (2022). Debt maturity structure and firm investment in the financially constrained environment. International Journal of Emerging Markets.
Podgórski, B., Pasierbek, K. (2020), The "magic action" of stock splits: Evidence from the warsaw stock exchange 2003-2017. Central European Management Journal, 28(1), 66-80.
Pramartha, I.M.A., Ratnadi, N.M.D., Yasa, G.W., Suaryana, I.G.N. (2020), Financial decision-making and firm value: Examining the moderating effect of good corporate governance in a state-owned enterprise. Journal of Advanced Research in Dynamical and Control Systems, 12(7 Special Issue), 1440-1450.
Salehi, M., Zimon, G., Arianpoor, A., Gholezoo, F.E. (2022), The impact of investment efficiency on firm value and moderating role of institutional ownership and board independence. Journal of Risk and Financial Management, 15(4), 170.
Setiawanta, Y., Utomo, D., Ghozali, I., Jumanto, J. (2021), Financial performance, exchange rate, and firm value: The Indonesian public companies case. Organizations and Markets in Emerging Economies, 11(22), 348-366.
Solikhah, B., Wahyudin, A., Al-Faryan, M.A.S., Iranda, N.N., Hajawiyah, A., Sun, C.M. (2022), Corporate governance mechanisms and earnings quality: Is firm size a moderation variable? Journal of Governance and Regulation, 11(1 special issue), 200-210.
Spence, M. (1973), Job market signaling. The Quarterly Journal of Economics, 87(3), 355-374.
Sun, L., Chen, S. (2017), Optimal strategy adjustment decision and firm value based on regime switching. Xitong Gongcheng Lilun yu Shijian/System Engineering Theory and Practice, 37(5), 1219-1228.
Susanti, N., Affandi, A., Herwany, A. (2019), Implications of ownership structure on firm value with financial decision as intervening variable (state-owned enterprise sector of Indonesia stock exchange). International Journal of Innovation, Creativity and Change, 9(12), 347-363.
Syamsudin, I.S., Setiadi, I., Santoso, D., Setiany, E. (2020), Capital structure and investment decisions on firm value with profitability as a moderator. Jurnal Riset Akuntansi Dan Keuangan Indonesia, 5(3), 287-295.
Tiurmauli, K., Pasu, R., Fauziah, F., Halawa, S.D., Rahayu, C.A. (2018), The impact of tax amnesty policy influence the investment decision and profitability in stock prices the best 45 companies in Indonesia. IOP Conference Series Earth and Environmental Science, 175, 012038.
Triani, N., Tarmidi, D. (2020), Firm value : Impact of investment decisions, funding decisions and dividend policies. International Journal of Academic Research in Accounting, Finance and Management Sciences, 9(2), 158-163.
Trinh, V.Q., Kara, A., Elnahass, M. (2022), Dividend payout strategies and bank survival likelihood: A cross-country analysis. International Review of Financial Analysis, 81, 102129.
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.
Wang, K.T., Wu, Y., Sun, A. (2021), Acquisitions and the cost of debt: Evidence from China. International Review of Financial Analysis, 78, 101925.
Yaghoubi, M., Keefe, M.O. (2022), The financing of uncertain future investments. Studies in Economics and Finance, 39(5), 754-771.
Yondrichs, M., Laupe, S., Mayapada, A.G., Jurana, R. (2021), The effect of fundamental factors, sustainability reporting, and corporate governance on firm value. Universal Journal of Accounting and Finance, 9(6), 1503-1509.