

Factors Affecting Stock Prices Of Energy Sector In Vietnam

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Abstract:

This research investigates the factors influencing the stock prices of 27 listed energy companies in Vietnam from 2016 to 2022. Employing regression models such as Pooled OLS, Fixed Effects Model (FEM), Feasible Generalized Least Squares (FGLS), the study concludes that exchange rates, enterprise size, financial leverage, Price-to-Earnings ratio (P/E), return on assets (ROA) positively affect stock prices in the energy sector. Conversely, inflation rate, oil prices, and dividend payout ratio negatively impact on stock prices.

KeyWords: Energy stocks, FEM, FGLS, Pooled OLS

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I. Introduction

During the volatile market period from 2016 to 2022, energy industry's stock price emerged as a stable segment amidst the financial market storms. Despite substantial growth, the energy sector in Vietnam faces vulnerabilities and challenges that may pose risks to national energy and financial security. Given the crucial role of the energy industry in Vietnam's economy, this research explores the factors influencing stock prices, providing both theoretical and practical insights. The reason our research group chose the period of 2016 - 2022 is because according to "Prime Minister's Decision No. 63/2013/QĐ-TTg of 2013, Conditions and Structure of Electricity Sector for Formulation and Development of Electricity Market Levels in Vietnam", this is the stage of the competitive wholesale electricity market (level 2). Thus, according to the Vietnamese government's plan, the Vietnamese electricity industry has entered a new phase with new conditions for electricity companies in Vietnam. This study analyzed the factors of stock price fluctuations for 27 publicly-listed energy companies on the Ho Chi Minh City Stock Exchange (HOSE) and the Hanoi Stock Exchange (HSX). While studies on stock price fluctuations across diverse industries listed on various stock exchanges have been conducted both domestically and internationally, research on the impact of various factors on energy sector stock prices in Vietnam remains limited. Subsequently, the research offers recommendations for investors and companies to harmonize the interests of all stakeholders. It also provides insights for regulatory bodies on managing energy sector companies in Vietnam, ensuring the sustainability of the energy sector in the country.

II. Literature Review

Stocks are certificate representing an investor's contribution to a company's issuance, confirming the ownership of one or more portions (shares) of that company. It is considered an attractive investment channel for investors with idle funds, with stock prices being a key determinant for investment decisions (Nguyen Thi Minh Hue & Le Thi Huong Lan, 2019).

The Efficient Market Hypothesis (Fama, 1970) suggests that stock prices reflect all known information in the market, making it challenging to predict price fluctuations accurately. Information that impacts stock prices emerges randomly at some point in the future, making it challenging to predict accurately, resulting in stock price fluctuations.

The Signaling Theory (Ross, 1977) emphasizes the significance of financial report disclosures in influencing investor decisions. Information disclosed provides a comprehensive snapshot of a company's financial health up to the current time and its prospects in the future. Researchers such as Richard D. Morris (1987), Barclay & Smith (1995), Pettit (1972) have suggested that information in financial reports and derived indicators strongly influence stock prices and the company's value. However, in developing countries like Vietnam, the phenomenon of information asymmetry in the stock market is widespread, leading to inaccurate investment decisions by non-professional investors or market speculators.

Additionally, the Arbitrage Pricing Theory proves useful in analyzing investment portfolios, considering the relationship between expected stock returns and market risk. Based on the relationship between expected stock returns and the market's systematic risk, APT is considered more flexible than the Capital Asset

Pricing Model (CAPM).

Numerous studies globally have explored factors influencing stock prices across various industries. However, in Vietnam, research on the impact of factors on energy stocks remains limited. This study aims to fill this gap by identifying and analyzing factors affecting the stock prices of energy companies listed on the Ho Chi Minh City Stock Exchange (HOSE) and Hanoi Stock Exchange (HSX).

Crude Oil Price: Brent Crude Oil Price (the spot price of a barrel of crude oil) are obtained from the Energy Information Administration (EIA). Given that Vietnam is primarily an oil-importing nation, oil prices tend to move in the opposite direction to stock prices. Nguyet & Thao (2013) have shown that oil prices have a negative impact on the stock prices of businesses listed on the Vietnamese stock market. This inverse relationship has been also supported by research conducted by Hosseini S.M, Z.Ahmad, and Y.W. Lai (2011); Abhyankar, Bing Xu, and Jiayue Wang (2013); Trinh & Dan (2018).

Exchange Rates: The exchange rate is the ratio of the US dollar to the Vietnamese Dong. This factor not only impacts foreign investment decisions but also influences the importing activities of companies in terms of raw materials. Nguyet & Thao (2013) pointed that exchange rates of USD/VND have a positive impact on the stock prices of businesses listed on the Vietnamese stock market. Furthermore, research conducted by Eita & Joel Hinaunye (2012) has revealed the effects of exchange rates on the overall stock market and investor sentiment, causing stock prices to move in tandem with exchange rate fluctuations.

Inflation Rate: Higher inflation rates tend to drive stock prices down. Inflation occurs when companies need to use more money to meet debt obligations or when the prices of raw materials increase. Tarun K. Mukherjee and Atsuyuki Naka (1995) pointed out the negative impact on the Japanese stock market related to inflation factors. According to these two authors, there is a co-integrating relationship between inflation and the volatility of the Tokyo Stock Exchange.

Return on Assets (ROA): This is an indicator reflecting a company's profitability from utilizing various sources of capital, including both debt and equity (Hue & Kham, 2016). It measures the ratio of net income to total assets of the company. Stocks of companies with impressive net profits are more appealing to investors, resulting in higher stock prices. According to Anggoro Panji Nugroho and colleagues (2022) have shown the positive influence of the ROA index on the 45 largest capitalized enterprises on the Indonesian stock exchange. Or Kittisak Jermstittiparsert and colleagues (2019) also pointed out the same direction of the ROA index on the stock prices of businesses listed on the exchanges of Thailand, Indonesia and Singapore. Farshan Saputra (2022) or Fathonah Eka Susanti and Titi Laras (2021) have shown the same impact of ROA index on Indonesian businesses.

Firm Size (SIZE): Measured by a company's net revenue, the larger the company, the more stable its stock prices tend to be, as larger companies usually possess strong financial capabilities for market expansion and competition. According to Naveed and Ramzan (2013), net revenue positively affects the stock prices of 34 random businesses from 34 sectors on the Karachi Stock Exchange (KSE) 100 index of Pakistan.

Price-to-Earnings Ratio (P/E): Reflecting the degree of acceptability of the return on investment, the P/E ratio evaluates the amount of profit earned per dollar invested to own a stock (Hue & Kham, 2016). It also indicates whether stock prices may be inflated in relation to their actual value. Baskin (1989) with the research of 2344 U.S. firms over a period of 1967 to 1986 had concluded a positive relationship between stock prices and the P/E ratio.

Dividend Payout Ratio: Dividends received serve as one of the motivating factors for investors to decide to invest in stocks. Dividends are a portion of net profits or post-tax profits that a company pays to its shareholders (Hao & Tuan, 2019). However, not all profitable companies distribute dividends to shareholders, as some may retain profits for reinvestment. Dividends can be paid in cash, in the form of shares (in-kind), or a combination of both (Allen & Michaely, 1995; Baker, 2009). The dividend payout ratio is calculated by dividing dividends by face value (Baker, 2009). Baskin (1989) with the research of 2344 U.S. firms over a period of 1967 to 1986 pointed the negative impact of the dividend payout ratio on stock prices, while Mohammad and colleagues (2012) also found a contrary relationship, with the dividend payout ratio exerting an inverse effect on stock prices.

Financial Leverage (FL): According to Stephen Ross, Randolph Westerfield & Bradford Jordan (2022), the use of debt in a company's capital structure is referred to as financial leverage. The greater the debt a company has (as a percentage of assets), the higher the degree of financial leverage. Therefore, financial leverage increases potential benefits for shareholders but also raises the risk of financial distress and business failure. Financial leverage is calculated using the formula: $D/E = \text{Total debt} / \text{Total assets}$. In this context, the research group approaches total debt to total assets and aims to understand whether and how the leverage index affects energy companies in Vietnam. Arum Desmawati and colleagues (2015) showed the negative impact of financial leverage ratio on stock prices of manufacturing enterprises Listed on the Indonesia Stock Exchange in the period 2007-2011.

III. Research Methodology

Data Collection

The research examined 27 companies related to energy sector including oil & gas and electricity listed on the Ho Chi Minh City Stock Exchange (HOSE) and the Hanoi Stock Exchange (HSX). These companies were selected by the research group based on the criteria of SIC codes 4900 to 4931, as defined by the Standard Industrial Classification (SIC) of the U.S. Securities and Exchange Commission, during the period from 2016 to 2022. As defined by MSCI.Inc and S&P in The Global Industry Classification Standard, the energy industries are oil, gas & consumable fuels and equipment & services. Their sub-industries are exploration & production, refining & marketing and storage & transportation. According to this definition, the energy industries does not consist of the electrical utility. However, in some research articles such as Tanveer Islam, Jeffrey Ryan (2016) or Rudy Kahsar (2023), the energy industry still mentioned electricity.

Research Methods

The collected data is secondary data collected from audited financial statements (FS) of 27 energy enterprises listed on the Vietnam Stock Exchange in the period 2016 - 2022, including 20 enterprises listed on the Ho Chi Minh City Stock Exchange (HOSE) and 7 enterprises listed on the Stock Exchange Hanoi Securities (HNX). During the data collection, the team discarded some observations due to lack of availability of listing time, or externalities in the model that could interfere with calculations. As a result, the team collected a complete dataset from 27 enterprises with 189 observations.

After collecting and calculating important indicators that financial statements do not show, the data is synthesized, sorted and fed into Stata 17 software in the form of tabular data models to conduct descriptive statistical analysis, Pearson correlation coefficient analysis, and regression analysis using models such as Pooled OLS, FEM and REM.

Next, the research team used tests such as the F-test, the Hausman test to select the appropriate regression model and check for model defects through tests such as the linear multi-additive test using the VIF coefficient, the self-correlation test using the Wooldridge test, and the variable variance test using the Breusch-Pagan Lagrangian test multiplier. Finally, the authors used a correction method using the FGLS smallest squares model to correct the defects and verify the stability of the model.

Research model

$SP = \beta_0 + \beta_1EXPt + \beta_2INFt + \beta_3COPt + \beta_4ROAit + \beta_5SIZEit + \beta_6PEit + \beta_7FLit + \beta_8DPit + \epsilon_i$
 With β_0 is Intercept coefficient; β_1 - β_{10} are Coefficients of independent variables; ϵ is Error; i is Company; t is year.

Research hypothesis

As details above, researcher submit various hypothesis as below:

- H1: The exchange rate has the same effect as the share prices of listed energy enterprises.
- H2: The inflation rate has an inverse effect on the stock prices of listed energy companies.
- H3: Crude oil prices have the same effect as stock prices of listed energy companies.
- H4: The return on total assets (ROA) ratio has the same effect as the share prices of listed energy companies.
- H5: The size of the enterprise has the same impact as the share prices of listed energy enterprises.
- H6: The price-to-earnings ratio of 1 share (P/E ratio) has the same effect as the share prices of listed energy companies.
- H7: Financial leverage has an inverse effect on the share prices of listed energy companies.
- H8: The dividend payout ratio has an inverse effect on the share prices of listed energy companies.

Picture 1: Factors affecting dependent variable



IV. Research Results

Table 1: Variables and Expected Impact Signs

Variables	Symbols	Formula	Expectany mark
Dependent variables			
Stock Price	SP		
Independent variables			
Exchange rate (USD/VND)	EX	Worldbank	+
Inflation rate	INF	Worldbank	-
Oil Price	COP	Trading Economics	-
Return on Assests	ROA	$\frac{\text{Net Income}}{\text{Total Assest}}$	+
Company size	SIZE	Net Sales	+
Price to Earning ratio	PE	$\frac{\text{Company stock price}}{\text{Profit of a share}}$	+
Financial Leverage ratio	FL	$\frac{\text{Total Debt}}{\text{Total Assests}}$	-
Dividend Payout Ratio	DP	$\frac{\text{Annual dividends}}{\text{Company stock price}}$	-

Source: Compilation of the authors

The study presents descriptive statistical results of dependent and independent variables for energy companies listed on the Vietnam stock exchange from 2016 to 2022. Data, including macroeconomic factors (EX, INF, COP) and internal business factors (ROA, SIZE, PE, FL, DP), reflect the influences on energy stock prices (SP). The dataset comprises a total of 189 observations, with 27 energy companies having complete data for the specified 7-year period.

Table 2: Correlation Matrix

	SP	EX	INF	COP	ROA	SIZE	PE	FL	DP
SP	1.0000								
EX	0.3068	1.0000							
INF	-0.1910	-0.0272	1.0000						
COP	0.2908	0.4727	-0.5439	1.0000					
ROA	0.6681	0.0658	0.0459	0.0626	1.0000				
SIZE	-0.0812	0.0982	0.0031	0.0689	-0.2692	1.0000			
PE	-0.1490	-0.0968	-0.0770	-0.0029	-0.1943	-0.0594	1.0000		
FL	-0.3975	-0.0692	0.0077	-0.0206	-0.5001	0.3275	0.0532	1.0000	
DP	-0.0964	-0.0560	-0.0555	-0.0263	-0.1079	0.0070	0.3853	0.0977	1.0000

Source: Compilation of the author team

Most of the correlations between independent variables are less than 0.5 except for the correlations between pairs of variables: INF and COP, FL and ROA, with correlation coefficients of -0.5439 and -0.5001 respectively. Therefore, the model is likely to exhibit multicollinearity.

The study utilizes Variance Inflation Factor (VIF) to check multicollinearity among independent variables in the research model. The results indicate no multicollinearity as VIF values are all below 5, with an average VIF of 1.67. Additionally, the model exhibits autocorrelation and varying error variance, confirmed through Wooldridge and Breusch-Pagan Lagrangian multiplier tests.

Table 3: Research Model Results

	Pooled OLS	FEM	REM	FGLS
Constant	-59.9545***	-59.5069***	-60.9620***	-53.7254***
EX	6.4016***	5.9249***	6.5170***	5.9069***
INF	-0.7565***	-0.6215***	-0.6813***	-0.5408***
COP	-0.1935	-0.1020	-0.1019	-0.2084**
SIZE	0.0979***	0.2698*	0.0959*	0.0866***
FL	-0.0601	-0.1024*	-0.0794**	-0.1577***
PE	0.0787**	0.0565	0.0568*	0.0637***
ROA	4.9954***	1.6657**	3.2761***	3.4683***
DP	-0.0134**	-0.0072**	-0.0078**	-0.0115***
R-squared	52.19%	13.38%	51.49%	
F-test	F (8,177) = 26.25 Prob > F = 0.0000***	F (8,26) = 21.53 Prob > F = 0.0000***	Wald chi 2(8) = 190.03 Prob > Chi2 = 0.0000***	Wald chi 2(8) = 337.07 Prob > Chi2 = 0.0000***

Note: ***, ** and * indicate 1%, 5%, and 10% significance levels

Source: Compilation of the authors

This study employs the Feasible Generalized Least Squares (FGLS) estimation to ensure the robustness of the research model. The results from the various models indicate:

The exchange rate between the Vietnamese Dong and the US Dollar has a positive impact (+) on the stock prices of listed energy companies. This implies that when the Vietnamese Dong depreciates against the US Dollar, the stock prices of electricity and energy exploration companies increase. Conversely, when the Vietnamese Dong appreciates against the US Dollar, stock prices decrease. This conclusion is in line with economic principles because when the exchange rate decreases, the Vietnamese Dong becomes weaker compared to the US Dollar, making Vietnam's energy products more attractive on the international market. Furthermore, stocks of companies in the electricity and energy sector in Vietnam are often considered promising assets in the context of economic growth and increasing energy demands. Vietnam is currently experiencing rapid economic growth, and the demand for energy for infrastructure development and industrialization is rising. Energy companies are seen as vital suppliers to meet this demand. Therefore, when the exchange rate decreases, the economy can become stronger, and energy demand can increase, leading to an increase in the stock prices of energy companies. While there is no direct research providing results on the impact of exchange rates and stock prices of listed energy companies, some studies have shown a similar positive impact of exchange rates on stock prices, such as the research by Eita and Joel Hinaunye (2012), Aurangzeb (2012), Nguyet & Thao (2013).

Inflation rates, the rate of growth in the prices of basic goods and services, have a negative impact (-) on the stock prices of electricity and energy companies in Vietnam. First, increasing inflation rates often lead to higher prices of energy-related commodities and fuels. This means that companies face sudden increases in energy production costs. This increase in costs negatively affects profitability, as companies must spend more on producing the same amount of energy. As a result, profits decrease, leading to lower stock prices for energy companies. Second, inflation creates economic uncertainty. Investors often worry about the negative impact of inflation on business and investment prospects. In an economy with high inflation, financial conditions are often unstable, which can reduce the overall market value of stocks. Energy companies also face this financial instability. Finally, increasing inflation rates often come with higher central bank interest rates. Higher interest rates can reduce the market value of stocks, especially in the energy sector. Companies in this sector often need to borrow money for long-term projects, and higher interest rates can increase their capital costs. This leads to lower stock prices for electricity and energy companies. Research results on this negative impact have also been supported by previous studies by Mukharjee & Naka (1995), Eita & Joel Hinaunye (2012), all of which have demonstrated an inverse relationship between stock prices and inflation rates. In addition to foreign studies,

Kieu & Diep (2013) found a negative correlation between inflation and stock prices in the Vietnamese stock market.

The price of oil has a negative impact (-) on the stock prices of electricity and energy companies in Vietnam because this sector relies on imported energy raw materials, often crude oil. Domestic energy supply remains limited, and many companies in the sector have to import crude oil and related energy products to maintain their production activities. When the price of crude oil rises, the cost of importing energy for these companies also increases significantly. This can create significant financial pressure on these companies. In particular, energy companies often establish many long-term contracts to ensure a stable energy supply, and high crude oil prices can lead to more expensive purchase agreements. When costs increase, profits decrease, leading to lower stock prices. This research is consistent with previous studies by Hosseini S.M, Z.Ahmad and Y,W. Lai (2011), as well as Nguyệt & Thảo (2013), which demonstrated the inverse relationship between crude oil prices and the stock prices of energy companies. This reflects the market's response to global energy and financial information.

The ratio of profit margin on total assets has a positive impact (+) on the stock prices of listed energy companies. This is reasonable because ROA is one of the fundamental indicators in a company's financial reports, showing the net profit a company earns on its total assets by measuring the profit margin on total assets (ROA) after interest and taxes. (Solihin, 2019). With the ROA ratio in financial reports, investors can view or analyze the efficiency of a company in using assets to generate profit. If the ROA of an energy company increases over time, it indicates an improving asset performance. Investors often appreciate companies with the ability to optimize asset utilization for profitability. The growth of ROA can increase the attractiveness of stocks and lead to an increase in market value. Conversely, if the ROA of an energy company declines due to reduced profit or increased assets, this may raise concerns about asset efficiency and the ability to generate sustainable profits. Reduced ROA can lead to lower stock prices. Research results on this positive impact have also been confirmed in previous studies by Farshan Saputra (2022), Fathonah Eka Susanti and Titi Laras (2021), Lambey (2008), Zuarni (2008).

Company size has a positive impact (+) on the market value of stocks for listed energy companies. This is also consistent with real-world data, as the company size often creates different evaluations among investors. Large companies may have the advantage of accessing larger capital and the ability to carry out large projects. This often boosts investor confidence and increases the market value of stocks. In contrast, smaller companies may struggle to attract capital and undertake large-scale projects, leading to lower market value. Moreover, company size can affect competition and brand strength. Large companies can leverage their size to gain a competitive edge and create a strong brand. This can increase the market value of their stocks. Smaller companies often face more intense competition and have less money to invest in brand development, which can result in a lower market value. Lastly, company size often impacts negotiation abilities and relationships with partners, including governments and international organizations. Large companies can have more significant influence and stronger negotiation power, creating favorable conditions for business operations and increasing stock market value. In contrast, smaller companies often have less influence and difficulties in negotiations, which can result in lower market value. The positive impact of company size on stock market value is consistent with previous studies, including the research by Naveed & Ramzan (2013). These findings can provide investors and company managers with a deeper insight into the impact of business scale, supporting effective investment and management decisions.

The Price-to-Earnings (P/E) ratio has a positive impact (+) on the stock prices of listed energy companies. This occurs because a high P/E ratio indicates that the stock price is higher than the earnings per share (EPS), making the stock less attractive compared to other stocks in the industry when the P/E ratio is higher than the industry average. Another reason is that energy companies may face significant profit volatility due to changes in oil and gas prices, business environment instability, variations in national and international policies, and other factors. When a company's profits decrease, the P/E ratio increases, which can reduce the market value of the stock. This negative impact of the P/E ratio is consistent with previous studies by Azimah Hanifah (2019) and Baskin (1989).

Financial leverage has a negative impact on the market value of stocks for listed energy companies. Long-term use of financial leverage can create financial risks and put pressure on businesses. When businesses use financial leverage, they typically borrow money or issue bonds. As the debt from these sources increases, the company has to pay additional interest and principal, which can reduce net profits and available cash. In combination with assumptions about inefficient use of borrowed funds, uncertain business development, or insufficient profits to cover debts, financial risk can arise and create investor anxiety, leading to a decrease in the stock's market value. The negative impact of financial leverage on stock prices has been supported by research by Putu Dina Aristya & IGNA Suaryana (2013), Arum Desmawati, Murni Mussalamah & Muzakar Isa (2015), Nadicathelia & R. Djoko Sampurno (2016).

The dividend payout ratio has a negative impact (-) on the market value of stocks for listed energy

companies. This conclusion can be explained by the fact that investors in the Vietnamese market have become more knowledgeable and discerning. Instead of considering dividend payouts as a sign of good company development and always trying to buy shares of companies with high dividend ratios, investors have focused on and made investment decisions based on other intrinsic value indicators of the company, such as EPS, ROA, ROE, etc. Furthermore, energy companies often need substantial investment in infrastructure and long-term projects. If the dividend payout ratio is too high, and the company does not hold enough money to meet these investment needs, it will increase the demand for borrowing or issuing new shares. This causes investor concerns about financial instability in the long term, leading to a decrease in market value. The negative impact of the dividend payout ratio on stock prices has been explained in the previous studies of Baskin (1989), Allen & Rachim (1996), Rashid & Rahman (2008), Mohammad & colleagues (2012).

V. Conclusion

From the research outcomes, it is evident that variables such as exchange rates, company size, financial leverage, P/E ratio, and net profit margin on total assets positively influence the stock prices of energy companies. This is consistent with previous studies by Baskin (1989), Zuarni (2008), Putu Dina Aristya & IGNA Suaryana (2013), Naveed & Ramzan (2013), Nguyet & Thao (2013). Conversely, factors like inflation rates, oil prices, and dividend payout ratios have a negative impact on these companies' stock prices, similar to the research articles of Baskin (1989), Kieu & Diep (2013).

Based on these findings, the authors recommend that the government takes an active role in forecasting macroeconomic factors, especially in the oil price, exchange rate and inflation rate of country. Government predictions and warnings are useful information to help energy businesses come up with scenarios to cope with economic fluctuations to minimize risks. Energy businesses in times of economic downturn with adverse fluctuations such as rising oil prices or inflation leading to input material price increases, can plan to diversify supply sources or cut reduce operating costs. In addition, government predictions also help investors make predictions about the future energy market, thereby making investment decisions that suit their personality and their own financial ability.

Besides macro factors, micro factors have important impacts on business operations and investors' decisions. Micro factors help businesses recognize the strengths and weaknesses in their operations, thereby taking specific actions to adjust. Specifically for energy businesses, companies should enhance management capabilities for their leadership teams, establish stable long-term dividend policies to meet the interests of shareholders participating in the market, and devise solutions to focus on expanding business operations while maintaining stable growth. Micro factors that are specific to energy businesses are return on assets, profit margin, dividend payout, financial leverage, price-to-earnings ratio to help investors grasp the operating situation of the energy business. They can compare energy businesses against each other to make sound investment decisions. Not only useful to investors, the above special indices of energy businesses are also the basis for authorities on stock exchanges to manage these businesses. By comparing the stock prices of energy companies with the factors stated by the research team, authorities can know whether the prices of these businesses are consistent with current factors to make quick management decisions.

In addition, other depth studies are still needed in the future to point out new influencing factors in new conditions arising in the future.

References

- [1] Allen D. E. And Rachim V. S. (1996), 'Dividend Policy And Stock Price Volatility: Australian Evidence', *Journal Of Applied Economics*, 6, 175-188
- [2] Ariani, D.W. (2012). *Leader-Member Exchanges As A Mediator Of The Effect Of Job Satisfaction On Affective Organizational Commitment*. Ariani, F., & Michaely, R. (1995), 'Dividend Policy: Handbooks In Operations Research And Management Science', 9, 793-837.
- [3] Arum Desmawati Murni Mussalimah Dan Muzakar Isa. (2015), 'Pengaruh Earning Per Share, Debt To Equity Ratio Dan Return On Equity Terhadap Harga Saham (Studi Empiris Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2007-2011)', *Benefit Jurnal Manajemen Dan Bisnis*, 19(2), 189-195.
- [4] Aurangzeb (2012), 'Factors Affecting Performance Of Stock Market: Evidence From South Asian Countries', *International Journal Of Academic Research In Business And Social Sciences*, 2(9), 1-15
- [5] Azimah Hanifah (2019), 'The Effect Of Earning Per Share (Eps), Price Earning Ratio (Per) And Price Book Value (Pbv) Against The Stock Price Of Telecommunications Sector Company Included In The Indonesian Islamic Stock Index (Issi)', *Kne Social Sciences*, 2019, 711-726
- [6] Baker, H. K. (Ed.). (2009), 'Dividends And Dividend Policy'
- [7] Baskin, J. (1989), 'Dividend Policy And The Volatility Of Common Stocks', *The Journal Of Portfolio Management*, 15(3), 19-25
- [8] Eita, Joel Hinaunye (2012), 'Modelling Macroeconomic Determinants Of Stock Market Prices: Evidence From Namibia', *The Journal Of Applied Business Research*, 28(5), 871-884
- [9] Hosseini S.M, Z.Ahmad & Y.W. Lai (2011), 'The Role Of Macroeconomic Variables On Stock Market Index In China And India', *International Journal Of Economics And Finance*, 6(3), 237-243
- [10] Kieu & Diep (2013), 'The Relationship Between Macroeconomic Factors And Stock Market Volatility: Evidence From The Vietnamese Market', *Journal Of Science And Technology Development*, 3(6), 86-100.
- [11] Loc & Hien (2013), 'Fundamental Factors Influencing The Investment Decision Of Individual Investors In The Vietnamese Stock

- Market,' Journal Of Science, University Of Open Education, Ho Chi Minh City, 6(3), 85-98. Trung (2022), 'Determinants Of Stock Market Modern Development: Evidence From Vietnam, Journal Of Eastern European And Central Asian Research', 9(6), 951 - 964
- [12] Mark J. Flannery (1986), 'Asymmetric Information And Risky Debt Maturity Choice', *The Journal Of Finance*, 66(1), 19-37
- [13] Mira Septiani, Nafiah Ariyani, Heri Ispriyahadi (2020), 'The Effect Of Stock Prices, Return On Assets, And Firm Size On Dividend Payout Ratio: Evidence From Indonesian Financial Service Companies', *Diponegoro International Journal Of Business*, 3(1), 17-27
- [14] Mohammad Hashemijoo, Aref Mahdavi Ardekani & Nejat Younesi (2012), 'The Impact Of Dividend Policy On Share Price Volatility In The Malaysian Stock Market', *Journal Of Business Studies Quarterly* 2012, 4(1), 111-129
- [15] Mukherjee, T.K, And Naka, A. (1995), "Dynamic Relations Between Macroeconomic Variables & The Japanese Stock Market: An Application Of A Vector Error Correction Model", *Journal Of Financial Research*, 18(2), 223-237
- [16] Naveed And Ramzan (2013), 'A View About The Determinants Of Change In Share Prices: A Case From Karachi Stock Exchange (Banking Sector)', *Interdisciplinary Journal Of Contemporary Research In Business*, 12(4), 121-130.
- [17] Nguyen Thi Minh Hue & Le Thi Huong Lan (2019), *Securities Market Course*, National Economics University, Hanoi.
- [18] Nguyet & Thao (2013), 'Analysis Of The Impact Of Macroeconomic Factors On The Vietnamese Stock Market,' *Journal Of Development And Integration*, 8, 34-41.
- [19] Rashid & Rahman (2008), 'Dividend Policy And Stock Price Volatility: Evidence From Bangladesh', *Journal Of Applied Business And Economics*, 8.
- [20] Richard D. Morris (1987), 'Signalling, Agency Theory And Accounting Policy Choice', *Accounting And Business Research*, 18(69), 47-56, Doi:10.1080/00014788.1987.9729347
- [21] Roll, R. & Ross, S., 'An Empirical Investigation Of The Arbitrage Pricing Theory', *Journal Of Finance*, 35(5), 1073-1103.
- [22] Septiani, M., Ariyani, N., Ispriyahadi, H. (2020), 'The Effect Of Stock Prices, Return On Assets, And Firm Size On Dividend Payout Ratio: Evidence From Indonesian Financial Service Companies', *Diponegoro International Journal Of Business*, 3(1), 17-27.
- [23] Stephen A. Ross (1977), 'The Determination Of Financial Structure: The Incentive-Signalling Approach', *The Bell Journal Of Economics*, 8(1), 23-40
- [24] Stephen Ross, Randolph Westerfield & Bradford Jordan (2021), 'Fundamentals Of Corporate Finance', 13th Edition, Mcgraw-Hill Publication
- [25] Trinh & Dan (2018), 'Asymmetric Impact Of Oil Price Fluctuations On The Vietnamese Stock Market: A Nonlinear Ardl Model Approach,' *Journal Of Economic And Business Research In Asia*, Volume 29, Issue 9, 36-52.
- [26] Yen, G. & Lee, C (2020), 'Efficient Market Hypothesis (Emh): Past, Present And Future', *Review Of Pacific Basin Financial Markets And Policies*, 11(2)