

Factors Affecting Stock Prices of Food Companies Listed on Vietnam Stock Market

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Abstract – The article studies the factors affecting the stock market price of food companies listed on the Vietnamese stock market in the period from 2016 to 2022, the period affected by the Covid-19 pandemic. The data of the research was mainly taken from the financial statements of 15 small-to-large-scale food enterprises, and reputable websites such as General Statistics Office, State Bank of Vietnam, World Bank. We used the fixed and random effects model regression method based on the balance panel data. The research results show that there are four factors that have a positive impact on the stock market price of the food enterprises, including firm size (TTS), return on assets (ROA), gross domestic products (GDP), and earnings per share (EPS). The remaining variables, including dividend payout ratio (DPR), price-to-earnings ratio (P/E), consumer price index (CPI), return on equity (ROE) and Covid-19 have no significant effect on the dependent variable.

Keywords – Covid -19, Stock Prices, Food Companies, JEL, G30, G32, G41, M40.

I. INTRODUCTION

During the period 2016-2022, the world experienced many historical events that had a great impact on the stock market, especially the impact of the Covid-19 pandemic. The Vietnamese market during this period also witnessed a “glorious period” when the domestic market became more vibrant and then declined due to the impact of the pandemic, political conflicts, etc. However, after all, the stocks in the food industry have always been a bright spot in the market, maintaining their position, and attracting great attention from investors.

In recent years, Vietnam’s food processing industry has tended to grow strongly, gradually supplying many highly competitive products, occupying the domestic market and increasing exports. In the domestic market, after being heavily affected by Covid-19 causing a change in consumer trends, they began to pay more attention to necessary, clean and healthy foods. Changing consumer trends during the pandemic helped the food industry weather the storm of one of the biggest pandemics of this century. While the economy had to see other industries severely affected, the food industry still maintains its position, even growing. However, with the characteristics of the food industry as well as the opportunities that Vietnam’s food industry is having, many experts commented that the stock situation of food companies listed on the Vietnamese stock market has not really reached its full potential.

Up to now, there are only a few studies on the factors affecting stock prices in the food industry; however, the

research is often outdated or the research scope is too small or too wide. Therefore, it is extremely urgent to study the factors affecting the stock prices of food companies listed on the Vietnamese stock market in the period 2016-2022. However, previous studies will be the reference for this study and we hope that our research will answer the urgency of this topic.

II. OVERVIEW OF RESEARCH WORKS

Uddin, Rahman and Hossain (2013) studied stock price determinants in companies in the financial sector in Bangladesh - A study of the Dhaka Stock Exchange (DSE) using the regression method multivariable. The results show that the variables Earnings per share (EPS), Net Asset Value (NAV), Net Profit After Tax (EAT) and Price Earnings Ratio (P/E) have a close relationship with stock prices, or it can be said that these variables have a positive impact on stock prices.

Taimur Sharif, Harsh Purohit and Rekha Pillai (2015) in "Analysis of factors affecting share prices on the Bahrain stock market", researched and analyzed data from 41 listed companies on Bahrain stock market for the period 2006-2010 using OLS regression method and checking for standard errors. As a result, return on equity (ROE), book value per share, dividend per share (DPS), price earnings (P/E) and company size have an impact in the same direction and significant to the stock price whereas Dividend yield (DPS/EPS) has a negative effect, and debt-to-assets and earnings per share (EPS) have no impact on stock prices.

Assoc., PhD. Radhe Shyam Pradhan (2016) studied the factors affecting stock prices in Nepalese commercial banks, using data of 14 banks listed in NEPSE for the period from 2002-2013. By means of the multivariable regression model, the results show that company-specific variables such as Earnings Per Share (EPS), Dividends Per Share (DPS), Book Value per Share (BVPS), Market Price-to-Earnings Ratio (P/E), Return on Assets (ROA) and Firm Size (Size) have a positive impact on stock prices. Among the variables, Firm Size (Size) is considered to be the most important determinant affecting stock prices.

Mojaverian, S.M., Eshghi, F. and Ahangari, S. (2023) studied the impact of the Covid-19 outbreak on the stock value of food companies-the Tehran-Iran Stock Exchange case study. The author and colleagues use the regression model method, giving the results: Covid-19 and risk have a positive impact on stock prices; the Exchange rate has a negative effect on the stock price index.

Huynh Thi Anh Dao (2015) studied the factors affecting the stock prices of the companies in the food industry listed on the Ho Chi Minh City Stock Exchange with 15 food companies in the period from 2010-2014. By both qualitative and quantitative research methods (regression method), the results reveal that of the factors such as Dividend payment ratio (DIV); Earnings per share (EPS); Net Asset Value Per Share (NAVPS); Enterprise size (Size), Gross domestic product (GDP) always fluctuates positively with stock prices. In addition, the research results also show that the Consumer Index (CPI) factor moves inversely with stock prices.

Dinh Bao Ngoc & Nguyen Chi Cuong (2016) in the study "Factors affecting stock prices of companies listed on the Vietnamese stock market" used panel data based on the data from financial statements of 95 listed companies in the period 2008-2013 (including 570 observations). Applying the multivariate regression model, fixed effect model (FEM) and random effect model (REM), the researcher concludes that there is a statistically significant impact of factors such as dividend policy, profitability, financial structure and inflation that have a positive effect on stock price volatility. In contrast, firm size and economic growth have an inverse effect on sto-

-ck price volatility.

Pham Tien Manh (2017) studied the factors affecting the market price of stocks listed on the Hanoi Stock Exchange (HNX) with a sample of 359 companies in the period 2012-2016. The author uses research factor analysis (EFA), reliability analysis using Cronbach’s Alpha, autocorrelation model and regression model to give the following results: Dividend (DIV); Earnings per share (EPS); Price-to-earnings ratio (P/E); Gross domestic product (GDP), Consumer Price Index (CPI) have a positive impact on stock market prices.

Nguyen Hong Minh & Pham Thi Huong Linh (2022) studied the factors of financial indicators affecting the stock prices of pharmaceutical companies listed on the stock market with a sample of 60 pharmaceutical companies listed on HOSE, HNX and UPCOM at the end of the 6-year period from 2012-2018. With the multivariate regression method, the results show that the financial indicators such as EPS, BVPS and PE all have a positive impact on stock prices. The only variable that has the opposite result from the prediction and theory is the ROA which has the opposite result of the stock price variable.

Summary of studies on factors affecting stock prices is shown in Table 1.

Table 1. Summary of studies on factors affecting stock prices.

Factor Name	How to Determine	The Writer’s Name	Method	Research Scope	Direction of Impact
Dividend Payout Ratio (DPR)	Annual dividend per share / Profit per share	(Huynh Thi Anh Dao, 2015)	Regression model	Companies in the food industry are listed on the Ho Chi Minh City Stock Exchange in the period from 2010-2014	+
		(Dinh Bao Ngoc & Nguyen Chi Cuong, 2016)	Multivariate regression model	Companies listed on Vietnam stock market in the period 2008-2013	+
		(Pham Tien Manh, 2017)	Regression model	Companies with shares listed on Hanoi Stock Exchange (HNX) in 2012-2016	+
		(Taimur Sharif, Harsh Purohit & Rekha Pillai, 2015)	OLS, FEM, REM	Companies listed on the Bahrain Stock Exchange for the period 2006-2010	-
Earning Per Share (EPS)	(Net income - preferred stock dividends) / average number of shares outstanding.	(Huynh Thi Anh Dao, 2015)	Regression model	Companies in the food industry are listed on the Ho Chi Minh City Stock Exchange in the period from 2010-2014	+
		(Pham Tien Manh, 2017)	Regression model	Companies with shares listed on Hanoi Stock Exchange (HNX) in 2012-2016	+
		(Nguyen Hong Minh & Pham Thi Huong Linh, 2022)	Multivariate regression model	Pharmaceutical companies listed on the stock market from 2012-2018	+
		(Uddin, Rahman, & Hossain, 2013)	Multivariate regression model	Companies in the financial sector in Bangladesh have shares listed on the Dhaka Stock	+

Factor Name	How to Determine	The Writer's Name	Method	Research Scope	Direction of Impact
				Exchange (DSE) in 2005-2010.	
		(Taimur Sharif, Harsh Purohit & Rekha Pillai, 2015)	OLS, FEM, REM	Companies listed on the Bahrain Stock Exchange for the period 2006-2010	No impact
		(Prof. Dr. Radhe Shyam Pradhan, 2016)	Multivariate regression model	Banks listed in NEPSE (Nepal) in the period from 2002-2013	No impact
Price to Earning ratio (P/E)	Stock price (MP) / Earnings per share (EPS)	(Pham Tien Manh, 2017)	Regression model	Companies with shares listed on Hanoi Stock Exchange (HNX) in 2012-2016	+
		(Nguyen Hong Minh & Pham Thi Huong Linh, 2022)	Multivariate regression model	Pharmaceutical companies listed on the stock market from 2012-2018	+
		(Uddin, Rahman, & Hossain, 2013)	Multivariate regression model	Companies in the financial sector in Bangladesh have shares listed on the Dhaka Stock Exchange (DSE) in 2005-2010.	+
		(Taimur Sharif, Harsh Purohit & Rekha Pillai, 2015)	OLS, FEM, REM	Companies listed on the Bahrain Stock Exchange for the period 2006-2010	+
		(Prof. Dr. Radhe Shyam Pradhan, 2016)	Multivariate regression model	Banks listed in NEPSE (Nepal) in the period from 2002-2013	+
Consumer Price Index (CPI)	Cost to purchase basket of period goods / Cost to purchase basket of base period goods	(Huynh Thi Anh Dao, 2015)	Regression model	Companies in the food industry are listed on the Ho Chi Minh City Stock Exchange in the period from 2010-2014	-
		(Pham Tien Manh, 2017)	Regression model	Companies with shares listed on Hanoi Stock Exchange (HNX) in 2012-2016	No impact
GDP growth (GDP)	An increase in GDP year t compared to t-1	(Huynh Thi Anh Dao, 2015)	Regression model	Companies in the food industry are listed on the Ho Chi Minh City Stock Exchange in the period from 2010-2014	+
		(Pham Tien Manh, 2017)	Regression model	Companies with shares listed on Hanoi Stock Exchange (HNX) in 2012-2016	+
		(Prof. Dr. Radhe Shyam Pradhan, 2016)	Multivariate regression model	Banks listed in NEPSE (Nepal) in the period from 2002-2013	+
Enterprise size (TTS)	Total assets	(Huynh Thi Anh Dao, 2015)	Regression model	Companies in the food industry are listed on the Ho Chi Minh	+

Factor Name	How to Determine	The Writer's Name	Method	Research Scope	Direction of Impact
				City Stock Exchange in the period from 2010-2014	
		(Dinh Bao Ngoc & Nguyen Chi Cuong, 2016)	Multivariate regression model	Companies listed on Vietnam stock market in the period 2008-2013	-
		(Pham Tien Manh, 2017)	Regression model	Companies listed on the Hanoi Stock Exchange (HNX) for the period 2012-2016	No impact
		(Taimur Sharif, Harsh Purohit & Rekha Pillai, 2015)	OLS, FEM, REM	Companies listed on the Bahrain Stock Exchange for the period 2006-2010	+
		(Prof. Dr. Radhe Shyam Pradhan, 2016)	Multivariate regression model	Banks listed in NEPSE (Nepal) in the period from 2002-2013	+
Return on Total Assets (ROA)	Profit after tax/total assets	(Dinh Bao Ngoc & Nguyen Chi Cuong, 2016)	Multivariate regression model	Companies listed on Vietnam stock market in the period 2008-2013	+
		(Nguyen Hong Minh & Pham Thi Huong Linh, 2022)	Multivariate regression model	Pharmaceutical companies listed on the stock market from 2012-2018	-
		(Prof. Dr. Radhe Shyam Pradhan, 2016)	Multivariate regression model	Banks listed in NEPSE (Nepal) in the period from 2002-2013	+
Return on Total Equity (ROE)	Profit after tax / Equity	(Dinh Bao Ngoc & Nguyen Chi Cuong, 2016)	Multivariate regression model	Companies listed on Vietnam stock market in the period 2008-2013	+
		(Taimur Sharif, Harsh Purohit & Rekha Pillai, 2015)	OLS, FEM, REM	Companies listed on the Bahrain Stock Exchange for the period 2006-2010	+
Covid-19	Dummy variable	(Mojaverian, S.M., Eshghi, F., & Ahangari, S, 2023)	Regression model	Food companies listed on the Tehran-Iran Stock Exchange	+

Source: Author's compilation from previous studies.

III. RESEARCH METHODS

3.1. Data Collection

This study was conducted with the dataset collected in the period 2016-2022 of 15 companies listed on the Vietnamese stock market: Bibica Confectionery JSC (BBC), Ben Tre Seafood Import-Export Joint Stock Company (ABT), Nam JSC Viet (ANV), Multinational Development and Investment Joint Stock Company (IDI), Dabaco Vietnam Group Joint Stock Company (DBC), Masan Group Joint Stock Company (MSN), Saigon Agricultural Products Export Joint Stock Company (AGX), JSC KIDO Group (KDC), Sao Ta Food Joint Stock

Company (FMC), Cholimex Food Joint Stock Company (CMF), Safoco Food Joint Stock Company (SAF), Hung Hau Agriculture Joint Stock Company (SJ1), Tuong An Vegetable Oil Joint Stock Company (KDC) TAC), Vinh Hoan Joint Stock Company (VHC). Here are 15 FIEs ranging from large to small that were fully disclosed during the research period. The database collected from annual financial statements of enterprises in the period 2016-2022, General Statistics Office to make detailed data tables.

3.2. Research Model and Hypothesis

3.2.1. Research Models

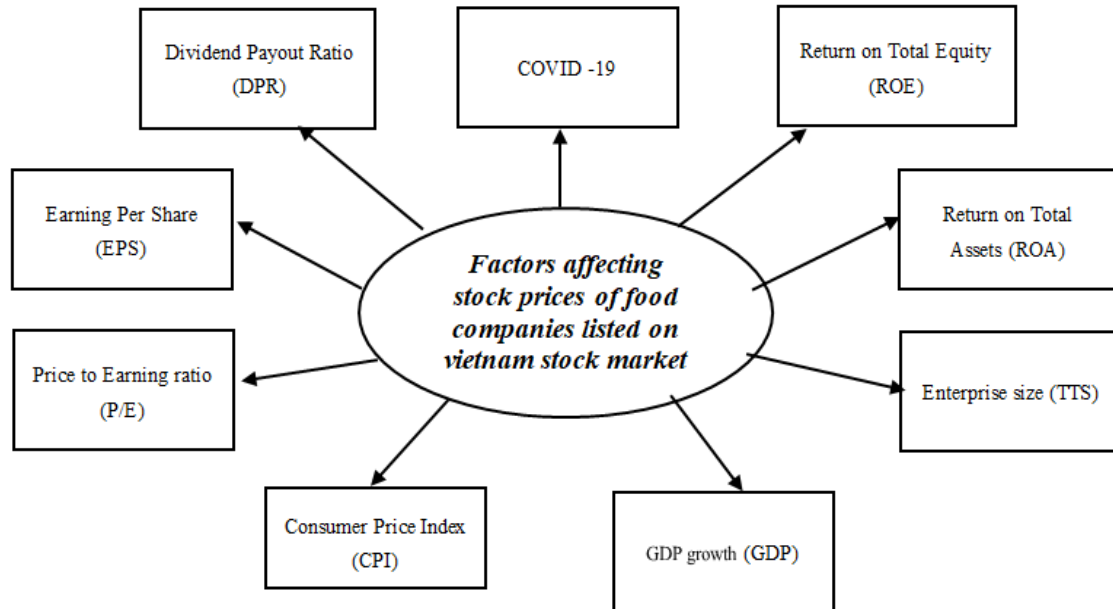


Image 3.1. Research models.

Based on the theoretical basis and the above arguments, the research team has built the following equation:

$$MP = \beta_0 + \beta_1DPR + \beta_2EPS + \beta_3P/E + \beta_4CPI + \beta_5GDP + \beta_6TTS + \beta_7ROA + \beta_8ROE + \beta_9COVID + e_i$$

3.2.2. Variables and Research Hypothesis

Table 2. Summary of the model's independent variables and expectations.

Variables	Sign	Indicator	Expected Sign	Source
Dependent variable				
Stock price	MP	The stock price of the last closing session of the year		Finance.vietstock.vn
Independent variables				
Dividend Payout Ratio	DPR	Annual dividend per share / Profit per share	+	Financial statements of 15 food businesses
Earning Per Share	EPS	(Net income - preferred stock dividends) / average number of shares outstanding	+	Financial statements of 15 food businesses
Price to Earning ratio	P/E	Stock price (MP) / Earnings per share (EPS)	+	Financial statements of 15 food businesses

Variables	Sign	Indicator	Expected Sign	Source
Consumer Price Index	CPI	Cost to purchase basket of period goods /Cost to purchase basket of base period goods	-	gso.gov.vn (General Statistics Office)
GDP growth	GDP	An increase in GDP year t compared to t-1	+	gso.gov.vn (General Statistics Office)
Enterprise size	TTS	Total assets	+	Financial statements of 15 food businesses
Return on Total Assets	ROA	Profit after tax/total assets	-	Financial statements of 15 food businesses
Return on Total Equity	ROE	Profit after tax / Equity	-	Financial statements of 15 food businesses
Covid-19	COVID	Dummy variable	+/-	

Source: Author's compilation from previous studies.

3.3. Data Processing

The data used in the model is mined as panel data. During the research, the data is processed and analyzed with the help of STATA 17 software. Then, the FEM, REM and Hausman tests will be used to find the model fit estimate and research sample. Next, the author tests the defects of the selected model, including multicollinearity, variable variance and autocorrelation. The solution to deal with multicollinearity is to remove the variable whose VIF is greater than or equal to 10. For variable variance and autocorrelation, appropriate corrections will be made to obtain the estimated result with the best quantity.

IV. RESEARCH RESULTS

4.1. Descriptive Statistics

Table 3. Summary of descriptive statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
TTS	105	9.36e+12	2.40e+13	1.52e+11	1.41e+14
ROA	105	.0890855	.0623426	.0004	.2543136
ROE	105	.1692094	.1070179	.0011	.4940362
GDP	105	.0583	.0203772	.0258	.082
CPI	105	.0296286	.0055603	.0184	.0354
EPS	105	5063.048	4789.246	25	27366
PE	105	19.68867	55.80935	2.08	560.28
DPR	105	19.23333	16.8159	0	135
COVID	105	0.4285714	0.4972452	0	1
MP	105	46907.52	40793.72	2600	213400

(Data Source: Stata 17 output)

The table presents descriptive statistics of the variables in the model on the influence of factors on the stock market prices of 15 Vietnamese FPPs in the period 2016-2022. The data are collected by year, so the total observation is 105 observations.

MP: This is the dependent variable that represents the stock prices of bond companies listed on the Vietnamese stock market. The stock market price of 15 bond companies in the observation period reached an average value of 46,907.52 VND. However, the standard deviation of this variable is high at 40,793.72 VND, showing that the difference between the minimum and the maximum value is very large. While the smallest value is 2,600 VND, the largest value is up to 213,400 VND. Therefore, it can be seen that the stock market price between the public companies listed on the stock market have big differences.

TTS: This is an independent variable that reflects the size of the business. The period 2016-2022 is a period when the total assets of Vietnamese food companies have grown continuously. Although at the end of the period facing a big challenge, the Covid-19 epidemic, the strongest increase is in the 2018-2020 period. This factor has an average value of 9,360 billion VND, the smallest value is 152 billion VND, and the largest value is 141,343 billion VND.

ROA: This is an independent variable reflecting the rate of return on total assets. The average ROA over 7 years is 8.9%. That is, on average, in five years (2016-2022), for every 100 VND of total assets that FPPs invest in business activities, they bring 8.9 VND of profit after tax. The higher the ROA is, the more efficiently the enterprise uses its assets. The largest ROA ratio is 25.43%, and the lowest is 0.04%. The standard deviation of 6.23% shows a large difference in the efficiency of using the total assets of FPPs.

ROE: This is the independent variable that evaluates the rate of return on equity. ROE has an average value of about 16.92 %, which means that for every 100 dong of equity that FBOs invest in business activities, there is 16.92 dong of profit after tax, in which the largest ROE is 49.4% and the smallest is 0.11%. The standard deviation falls to 10.7%.

GDP: This is an independent variable reflecting the growth rate of Vietnam's gross domestic product with the average value in seven years reaching 5.83%/year, in which the highest GDP growth rate is about 8.2%/year in 2022 and the lowest is 2.58% in 2021. The standard deviation is quite high at 2.04%. This proves that when the economy is growing rapidly, people will consume more, the demand for goods and services will increase in accordance with the promotion of production development, profitable businesses will grow, and the need to invest in this business will increase, creating many opportunities to break through and achieve growth as expected, which will increase revenue and profit of the business.

CPI: This is an independent variable reflecting the increase or decrease of the retail price of goods and services serving people's daily life. This indicator reached an average of 2.96%, of which the highest is about 3.54% and the lowest is 1.84%. The consumer price index standard deviation between years is 0.56%.

EPS: This is the independent variable that shows the profit after tax that investors get from one share. In seven years from 2016-2022, the average share profit of bond companies is VND 5063/share, in which the largest value is 27366 VND and the smallest value is 25 VND.

P/E: This is an independent variable used to evaluate the relationship between the market price of stock (MP)

and earnings per share (EPS). The price-to-earnings ratio indicates that the food stock price is undervalued or overvalued. In general, a high price-to-earnings ratio for food businesses helps investors expect high earnings growth in the future compared to food businesses with lower P/Es. During the 7 years from 2016-2022, the average P/E ratio is 19.69% reaching a peak price of 560.28 % and reaching a low of 2.08%. Relatively high standard deviation of 55.81%.

DPR: This is the independent variable that shows the percentage of income paid to shareholders through dividends. The mean is 19.23%, and the maximum and minimum values are 135% and 0. The standard deviation of the variable is 16.82%.

COVID: Dummy variable with the assumption that a food business operating in the year covid takes the value 1, and the rest takes the value 0.

4.2. Correlation Analysis

Table 4. Correlation matrix between variables.

	MP	TTS	ROA	ROE	GDP	CPI	EPS	PE	DRP	COVID
MP	1.0000									
TTS	0.2785	1.0000								
ROA	0.4285	-0.1794	1.0000							
ROE	0.4694	-0.0578	0.8654	1.0000						
GDP	-0.0963	-0.0238	0.1010	0.0756	1.0000					
CPI	-0.1097	-0.0360	0.0602	0.0727	0.5435	1.0000				
EPS	0.7360	-0.0907	0.6780	0.6788	0.0555	0.0073	1.0000			
PE	-0.0580	0.1169	-0.2519	-0.2685	0.0635	0.0175	-0.1942	1.0000		
DPR	0.3292	-0.1752	0.4859	0.4663	0.0650	0.0459	0.4963	-0.1429	1.0000	
COVID	0.1398	0.0932	-0.0401	-0.0815	-0.5409	-0.3488	0.0670	0.1454	-0.1639	1.0000

(Data Source: Stata 17 output)

Based on the Pearson correlation coefficient on the correlation coefficient matrix table, it shows that MP has a statistically significant positive relationship with TTS, ROA, ROE, CPI, EPS, DPR and COVID. However, MP has a negative relationship with GDP, CPI and PE.

4.3. Checking for Multicollinearity

To ensure the accuracy of the estimates in the model, the multicollinearity test was performed using the variance exaggeration factor VIF.

Table 5. Checking for multicollinearity.

Variable	VIF	1/VIF
ROA	4.67	0.214160
ROE	4.64	0.215693

Variable	VIF	1/VIF
EPS	2.23	0.448420
GDP	1.91	0.524135
COVID	1.67	0.600204
DPR	1.50	0.665399
CPI	1.44	0.695761
PE	1.15	0.867521
TTS	1.11	0.898060
Mean VIF	2.26	

(Data Source: Stata 17 output)

The results of the calculation of the variance exaggeration coefficient show that the variables in the regression equation satisfy the rule of thumb in which the variance exaggeration factor VIF is less than 10. Therefore, these variables will be used to run the regression model.

4.3. Regression Results

Table 6. Regression results.

Variables	Pool OLS	Pool FEM	Pool REM	Robust
TTS	0.000	0.002	0.000	0.000
	1.03e-10	2.00e-10	1.58e-10	7.92e-11
ROA	0.978	0.269	0.393	0.537
	81213.57	100091.7	91817.37	60359.2
ROE	0.750	0.560	0.762	0.143
	47141.97	42200.55	40845.48	29919.07
GDP	0.090	0.094	0.059	0.007
	158824.3	95292.34	96789.36	81236.3
CPI	0.522	0.188	0.205	0.572
	505192.9	289110	296641.5	256889.7
EPS	0.000	0.000	0.000	0.000
	0.7305884	0.7707949	0.7320059	0.8254946
PE	0.284	0.191	0.140	0.103
	45.07496	28.52062	29.01609	64.92645
DPR	0.771	0.683	0.712	0.433
	170.8132	107.7237	109.2918	111.1754
COVID	0.544	0.915	0.804	0.894

Variables	Pool OLS	Pool FEM	Pool REM	Robust
	6082.225	3859.307	3852.98	3246.727
Constant	0.028	0.000	0.000	0.001
	15390.01	9153.194	10716.86	8021.932
Observations	105	105	105	105
R-squared	0.6866	within = 0.5423 between = 0.6128 overall = 0.5874	within = 0.5385 between = 0.6887 overall = 0.6361	within = 0.5385 between = 0.6887 overall = 0.6361
Number of name		15	15	15
Prob>F/Prob>Wald Chi ²	0.0000	0.0000	0.0000	0.0000
Hausman test (Prob Chi ²)		0.0972		
Wald test (Prob>F)			0.0000	
Wooldridge test (Prob>F)			0.2512	

(Data Source: Stata 17 output)

The test results show that the random effects model (REM) is the best fit for the research sample, there is autocorrelation and variable variance, so in the study, the estimated Solid standard errors are used to obtain reliable results. As follows:

The variable firm size (TTS) shows a statistically significant positive relationship with stock market prices of food companies listed on the Vietnam stock exchange in the period 2016-2022. Thus, the larger the food business, the higher the stock price of that business. This result is consistent with previous results of (Taimur Sharif, Harsh Purohit & Rekha Pillai, 2015), (Huynh Thi Anh Dao, 2015), (Dinh Bao Ngoc & Nguyen Chi Cuong, 2016), (Prof. Dr. Radhe Shyam Pradhan, 2016), (Pham Tien Manh, 2017).

ROA has a positive relationship with statistical significance with the stock market prices of food companies listed on Vietnam stock exchange in the period 2016-2022. This shows that the higher the ROA, the lower the debt ratio, and the higher the profit earned from the shares of the investor, so the share price also increases accordingly. This result is consistent with the previous results of Dinh Bao Ngoc & Nguyen Chi Cuong (2016), Prof. Dr. Radhe Shyam Pradhan (2016), and Nguyen Hong Minh & Pham Thi Huong Linh (2022).

GDP has a statistically significant positive relationship with the stock market price of food companies listed on the Vietnam stock exchange in the period 2016-2022. Therefore, the higher the GDP growth rate is, the higher the stock price of that enterprise is. This result is consistent with the research results of Huynh Thi Anh Dao (2015), Prof. Dr. Radhe Shyam Pradhan (2016), and Pham Tien Manh (2017).

EPS has a statistically significant positive relationship with stock market prices of food companies listed on Vietnam stock exchange in the period 2016-2022. This shows that the higher the EPS, the higher the stock price of that company. This result is consistent with the previous results of Uddin, Rahman and Hossain (2013), Huynh Thi Anh Dao (2015), Prof. Dr. Radhe Shyam Pradhan (2016), Pham Tien Manh (2017), and Nguyen Hong Minh and Pham Thi Huong Linh (2022).

The remaining variables in the model do not show a statistically significant relationship with stock prices. However, according to previous studies, the price-earnings-per-share (P/E) ratio usually has a positive impact on the stock market, but this result does not. This is not unreasonable because only P/E is relative, usually the stock price and the profit of the business are proportional to each other. When the profit increases, many investors pay attention, the market capitalization increase, and the share price will also change. If there are many times that the stock price increases or decreases regardless of the company's profit, that is, it no longer depends on EPS, the P/E ratio will now be affected differently.

V. SOME RECOMMENDATIONS TO ENCOURAGE THE IMPROVEMENT OF STOCK PRICES OF THE SEALED FOOD INDUSTRY ON THE VIETNAMESE STOCK MARKET

From the regression results, it is shown that stock market price has a positive and statistically significant relationship with firm size (TTS), gross domestic product (GDP), and earnings per share (EPS). In addition, the stock market price has no relationship with the remaining variables including the Covid-19 variable. The above results are the basis for the authors to propose the following recommendations:

5.1. Recommendations for Companies in the Food Industry with Shares Listed on the Vietnam Stock Exchange

First, food companies should increase the size of enterprises. According to empirical research results, the larger the size of the enterprise is, the higher the stock market price of food enterprises listed on the Vietnam Stock Exchange is. Thus, it is necessary to increase the size of enterprises by improving the efficiency of using long-term assets and short-term assets.

Specifically, to improve the efficiency of long-term asset use, enterprises need to regularly check and periodically maintain machinery; consider renewing machines and production lines; and lease some temporary or unused machinery and equipment because the revenue from the leased assets will partly reduce the pressure on the cost of management and use of fixed assets for enterprises. At the same time, enterprises need to build and manage their production strategies according to long-term investment; closely manage the investment process; improve the "liquidity" of long-term investment funds, ensuring the flexible movement of capital between investments. Enterprises also need to focus on improving the efficiency of using short-term assets by selecting inputs suitable for their products, cutting unnecessary inputs to cut costs, choosing reputable suppliers, ensuring a regular supply of goods, and ready availability when enterprises need to produce to reduce their inventory, and leading to waste of management; quickly recover debts, especially long-term debts. Managers on debt collection issues and payments of partners with enterprises must closely monitor.

Second, increase the profits of enterprises. The increase in corporate profits will serve as a stepping stone for the increase in the size of the enterprise as well as it directly affects the increase in EPS, and when the size of the enterprise and EPS increase, the share price of the enterprise also increases - as a result of the study. Enterprises focus on increasing profits by four basic criteria and need to be done simultaneously. That is, businesses need to consider choosing products to suit their customer base, with the trend of consuming clean, environmentally friendly food. Most importantly, enterprises must create quality products with clean, fresh raw materials and have international standard production processes to increase their reputation with customers. Next, enterprises need to improve the quality of resources through careful selection of workers and employees;

examine and evaluate the working capacity of the current workers and employees in the enterprise to determine the income paid commensurate with the capacity of the laborers; open more training courses on the capacity and skills of recruited employees. Finally, businesses also need to promote marketing activities on social networking platforms which can create online sales websites of enterprises or a less expensive way than selling on e-commerce sites.

Third, businesses need to focus on their stocks. According to the results of section 4, a factor that also has a positive impact on the stock market price that businesses must pay attention to is earnings per share (EPS). Therefore, to increase EPS, enterprises can increase net profit, and reduce preferred stock dividends. At the same time, food businesses also need to update data and news about businesses in a timely and regular manner on the Stock Exchange to ensure that investors can clearly understand the information about the company's shares. This will make investment decisions take place faster, make the stock market more vibrant and increase the liquidity of the market.

5.2. Policy Implications for the Government and Ministry of Finance of Vietnam

Firstly, the Government needs to have solutions to promote stable growth of the domestic economy such as increasing the operational efficiency of the “invisible hand” by encouraging start-up businesses, equitization of investments, funds, investment support for enterprises, tax incentives, raw materials; building infrastructure for the development of enterprises; building and maintaining cooperative relationships with countries and regions in the world; and considering the macroeconomic policy-making carefully in terms of quantity, level and time of implementation for the policy to work effectively.

Second, the Government should implement policies to support businesses in the food industry, such as creating incentives on loan packages for businesses, using the State fund to invest in supporting businesses in difficulty; creating preferential tax rates for the food industry; making reasonable policies on land use rights of enterprises, on input materials; building a synchronous legal system, creating a level playing field for both domestic and international food enterprises; and encourage import and export by having tax exemption, tax reduction, anti-dumping, etc. policies for imported and exported goods.

Third, the Ministry of Finance needs to control and improve the requirements for listing securities of enterprises; require companies listed on the stock market to disclose complete, accurate and timely information; adopt more processes of inspection, review and licensing of listing and issuance, and create more opportunities for linkage between primary and secondary market traders.

Fourth, the State should create a securities credit rating agency for enterprises with high reputation and international standards with the role of information, orientation and risk prevention.

Fifth, the State needs to build and protect economic cooperation relationships with countries and regions around the world by encouraging enterprises and foreign investment funds to make long-term investments in Vietnam and establish a cooperative, equal and friendly relationship between domestic and foreign regulatory agencies in the fields of banking, securities, insurance, etc.

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