

## A SIGNAL OF FUNDAMENTAL FACTORS ON STOCK PRICE IN MALAYSIA: AN EMPIRICAL STUDY IN FOOD AND BEVERAGE INDUSTRY

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### ABSTRACT

*This study determines the impact of fundamental factors on the stock price in Malaysia. The study used dynamic panel data analysis for 25 listed firms in Food and Beverage Industry in Bursa Malaysia and covered the period from the first quarter of 2021 to the fourth quarter of 2021. It is identified that the last quarter of stock price has a significant impact on the current stock price positively. A negative relationship is found between return on equity and stock price. While other explanatory variables of revenue, net profit, earnings per share, free cash flow, and debt to equity ratio showed insignificant results toward stock price. The findings may benefit listed firms in identifying the main focus factors among investors. A corresponding action may be taken to maintain the capital funding for business expansion.*

**Keywords:** Stock Price, Fundamental Factors, Dynamic Panel Analysis

### 1.0 INTRODUCTION

A signal is a way of communication between two parties (Bergh, Connelly, Ketchen, & Shannon, 2014). In the stock market, the sender for the signal is the listed firm in Bursa Malaysia. Listed firms are the ones who have the information that outsider cannot obtain. Investors will receive a relevant financial report for them to make their evaluation. That information is a signal to hint to investors during their stock purchase selection. Financial report is the first source that could influence the decision of investors to buy or sell the stock because fundamental factors might influence a stock's price and value. A stock price tells buyers and sellers how much it is worth right now (Pinset et al., 2021). A stock price represents the expected profitability of firms. The higher the expected return, the higher the quantity demanded for the share unit. Listed firms could then receive more capital and utilize it in business expansion based on the increase in share prices. The price is the amount agreed upon by a buyer and a seller for the stock to trade at (Pinset et al., 2021). The stock's price will rise if there are more demand than supply. The price will drop if there are more supply than demand. Hence, the stock market would become uncertain in which the price goes up and down frequently due to the law of supply and demand holding (Hall et al., 2021)

As referred to Figure 1, the stock price movement experienced a downward trend from the second quarter of 2020 until the fourth quarter of 2021 due to the Covid-19 pandemic. It affects both parties of capital funding and income-earning for firms and consumers. It is necessary to understand the factor being focused on among investors. However, there is a lack of studies on the Food and Beverage industry regarding the impact of fundamental factors on the stock

price. The previous studies are focusing on the firms in insurance (Maani et al., 2021), non-banking (Puspitaningtyas, 2017), manufacturing (Sukesti et al., 2021; Gunanta et al., 2015) and chemical (Awan et al., 2018). Nugroho and Pertiwi (2021) have studied the restaurant industry while it included other industries such as hotel, tourism, and retail trade which may not fully utilize the specific impact for the Food and Beverage industry. This study determines the impact of fundamental factors on the stock price of the Food and Beverage Industry. For in-depth analysis, the listed firms could understand the influence of fundamental factors in maintaining the capital funding for business expansion.

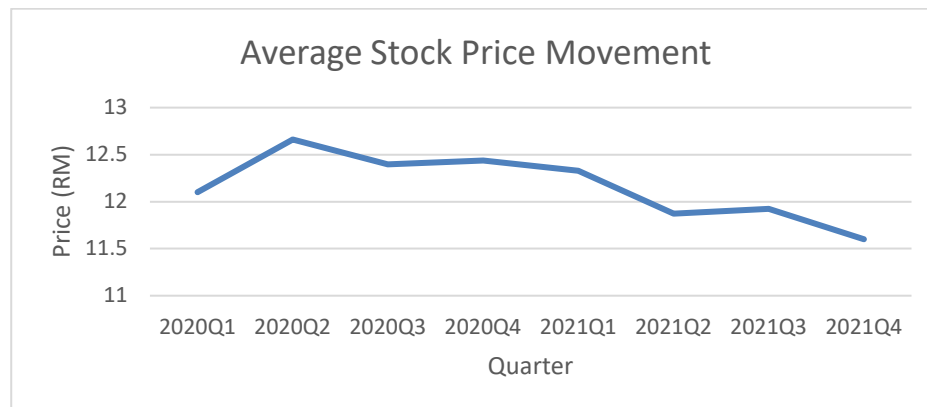


Figure 1 Average Stock Price Movement for Food and Beverage Industry  
Sources Bloomberg

## 2.0 LITERATURE REVIEW

Signalling theory (1973) and Efficient Market Hypothesis (1970) are used as underlying theories in this study. The basis of the signalling theory is the existence of information asymmetry between the two parties (Su et al., 2016). In 1970, Fama proposed the efficient market hypothesis, which states that a market is efficient if no investor obtains an abnormal return after adjusting for risks (Gumanti, 2011). Firms with excellent signals and reputations might increase their stock price (Yasar et al., 2020). The company's financial condition is a signal presented in the annual report and act as a way of communication between internal and external parties (Rajandran, 2020; Sun et al., 2020). According to Fama (1965), any market is semi-strong when the stock price directly reflects all publicly accessible information. In addition, the value expressed in a company's stock price represents the company's current condition (Apolaagoa et al., 2020), which means that if the company's value changes, the market will adapt to reflect the change in value.

Based on the previous research, the result of fundamental factors towards stock price remains inconclusive. Maani et al. (2021) and Puspitaningtyas (2017) found a similar finding of a negative relationship between return on equity with the stock price, while the finding is against the result of Nugroho et al., 2021 ; Bayrakdaroglu et al., 2017. Apart from this, the debt to equity ratio and earnings per share found a positive impact on stock prices (Sukesti et al., 2021; Awan et al., 2018; Puspitaningtyas, 2017). The research of Nugroho, et al. (2017) found a surprise output regarding that revenue has a negative relationship with the stock price. According to Gunanta et al. (2015), other accounting factors could be included in the stock price determinants. Hereby, this study will fill out the gap by including net profit and free cash flow as explanatory variables.

## 3.0 METHODOLOGY

All the data are obtained from Bloomberg. This study focuses on 25 listed firms in the food and beverage industry in the main market of Bursa Malaysia. This study covers the period

from the first quarter of 2021 to the fourth quarter of 2021 with 100 observations. In the stock market, dynamic analysis can give information of data nature. Stock markets are non-linear and non-stationary with high heteroscedasticity (Waldi et al., 2018) Apart from this, the prices' movement is also dynamic, stochastic, and unreliable nature (Mubena et al., 2022). Therefore, this study will utilize the panel dynamic method of Generalized Methods of Moments (GMM). GMM estimator is used when there has both endogeneity and heteroskedasticity problem. The GMM estimators were introduced by (Arellano & Bond, 1991; Arellano & Bover, 1995).

$$\ln SP_{it} = \beta_0 + \delta \ln SP_{i,t-1} + \beta_1 \ln RVN_{it} + \beta_2 \ln NP_{it} + \beta_3 \ln EPS_{it} + \beta_4 \ln FCF_{it} + \beta_5 \ln ROE_{it} + \beta_6 \ln DTE_{it} + \varepsilon_{it} \quad (1)$$

Equation (1) shows the function of stock price in this study, whereby stock price (SP), revenue (RVN), net profit (NP), earnings per share (EPS), free cash flow (FCF), return on equity (ROE), and debt to equity ratio (DTE). The term of ln refers to the natural logarithm, t refers to the time period, while i refers to the number of individuals.  $\delta$  refers to the coefficient of lagged dependent variable.  $\beta_0$  refers to constant,  $\beta_1$  to  $\beta_6$  refers to slope coefficient of independent variables. Meanwhile,  $\varepsilon_t$  refers to the error terms in the model.

According to Equations (1), the inclusion of lagged dependent variables will result in an endogeneity problem. According to Arellano and Bond (1991), endogeneity can be addressed by altering the data using the differentiation approach. However, Blundell and Bond (1998) argued that the difference in GMM might result in significant sample bias, thus they presented system GMM estimators to increase efficiency by combining lagged levels and different information. To ensure the result's robustness, both approaches, namely difference and system-GMM will be used in two-step process. According to Roodman (2009), the two-step GMM approach is more efficient and robust, and statistical tests are more trustworthy.

#### 4.0 RESULT AND DISCUSSION

As referred to the final output, the lag of stock price and return on equity are following the signalling theory. Investors are receiving an information asymmetry regarding the stock price movement and financial report for company's future earnings projections. It might be because of investors' different perception on it in which consider other information such as social media sentiment. While other explanatory variables are following the theory of efficient market hypothesis in which the information is fully reflected in the stock market. It could be explained that investors are focusing the profit generated from the stock trading instead of stock investment during this Covid-19 pandemic.

**Table 1 Empirical Result**

Dependent Variables	Stock Price			
	POLS	FD-GMM	SYS-GMM	FE
lnSP(-1)	1.018*** (0.000)	0.257 (0.693)	0.772** (0.016)	0.519*** (0.002)
lnRVN	-0.048 (0.128)	-0.136 (0.237)	-0.046 (0.694)	-0.017 (0.880)
lnNP	0.015 (0.483)	0.033 (0.237)	0.109 (0.808)	0.034 (0.204)
lnEPS	-0.006 (0.736)	0.070 (0.469)	0.014 (0.474)	0.008 (0.731)
lnFCF	0.013 (0.150)	0.007 (0.761)	0.016 (0.659)	0.016* (0.091)

lnROE	-0.041*	-0.024	-0.062*	-0.059*
	(0.084)	(0.653)	(0.091)	(0.054)
lnDTE	0.007	0.030	0.001	0.059
	(0.622)	(0.705)	(0.990)	(0.180)
Constant	0.208*	1.227	0.536	0.392
	(0.095)	(0.187)	(0.524)	(0.529)
Hausman Test	16.160**			
	(0.024)			
M. Wald Test	8.5e+05***			
	(0.000)			
DWH Test	4.760**			
	(0.029)			
ABA Test 1st Order	0.095	-1.315		
	(0.924)	(0.189)		
ABA Test 2nd Order	No result be estimated as robust standard error be applied			
Sargan Test				

Notes: Both difference GMM (FD-GMM) and system GMM (SYS-GMM) regressions use two-step estimation. The value inside the parentheses refers to the p-value of the variable, where \*, \*\*, and \*\*\* refers to the significance level at 10%, 5%, and 1%.

$$\ln SP_{it} = 0.536 + 0.772 \ln SP_{i,t-1} - 0.046 \ln RVN_{it} + 0.109 \ln NP_{it} + 0.014 \ln EPS_{it} + 0.016 \ln FCF_{it} - 0.062 \ln ROE_{it} + 0.001 \ln DTE_{it} + \varepsilon_{it} \quad (2)$$

Investors tend to generate capital gain from stock trading through the concept of buying low sell high. The lag one of stock price proved investors are expected that the stock price will continue rise until up to the max level of 0.772% on next quarter, then investors will do the trading transaction for income purpose as a positive result is found. The action of stock trading will lead to a stock price drop as the supply of shares is more than the demand. The changes in share outstanding will influence the performance of return on equity, it matches with the result finding of a negative relationship. It indicated that a 1% increase in return on equity will decrease the stock price by 0.062%. Investors could fall into the effect of information asymmetry when the return on equity increases. Investors would demand more from it as they would expect the company is well managing the equity fund to generate a return. However, the reason behind this is due to the decrease in the value of total equity. It could give a fake scenario regarding the return on equity is performing better due to the lower value of the denominator. This is the reason why a company could have a high performance in managing the equity fund, while the stock price keeps decreasing because of stock trading transactions.

## 5.0 CONCLUSIONS

This study aims to determine the factors that influence the stock price of the Food and Beverage Industry in Malaysia during the Covid-19 pandemic. This study covers the period from the first quarter of 2021 to the fourth quarter of 2021 with sufficient data on firms. Both theories of signalling and the efficient market hypothesis remain on hold nowadays. The lag of stock price has a positive relationship with the stock price, while return on equity has a negative impact on it. The result of the return on equity is supported by Maani et al. (2021) and Puspitaningtyas (2017), and the finding of free cash flow is similar to Oroud et al. (2017). Apart from this, other explanatory variables have an insignificant impact on the stock price. The result of revenue is against Nugroho et al. (2015), Awan et al. (2018) and Puspitaningtyas

(2017) also found different results for earnings per share. In addition, the opposite finding has been determined for the debt to equity ratio (Sukesti et al., 2021). It can be summarized that the performance of the stock price and return on equity is the main signal to influence the decision-making of investors. Investors and listed firms may consider the following implications. Investors may consider a short-term investment (stock trading for capital gains) instead of a long-term investment (potential return in the future). However, listed firms may consider imposing a dividend policy to maintain the equity finance from shareholders. An unstable equity fund would limit the business expansion. This study reveals that dynamic analysis is significant in the interaction of stock price as it could lead to a corresponding action for listed firms to solve the issues. For future research, a similar research topic could be expanded to other industries or sectors with a longer period for better understanding. Inflation rate, exchange rate and user-generated content as social media sentiment could be included as well.

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