

“The Financial Market Analysis on the Performance of Stock Market Leaders in Bangladesh: An Empirical Study”

Introduction

The financial market of Bangladesh is one of the most crucial components of country's economic development and financial inclusion. A financial market is a place where various financial instruments, such as stocks, bonds, currencies, and derivatives, are traded. These allow investors to manage their financial risk and thus generate profits. It carries a significant value in the economy of Bangladesh. However, irregular, and unexpected fluctuations in the financial market is creating obstacles on the way to flourish the potentiality of the financial market in Bangladesh. There are a number of reasons that creating difficulties, for example, low liquidity, high volatility, weak governance, lack of investor confidence, and poor market infrastructure, and so on. As we know that the financial market is one of the most significant elements of a country's economy, so it deserves an in-depth study. Moreover, understanding the market conditions and analyzing the factors influencing it will lead to establish a solid understanding to reduce the fluctuations, and better management of it.

There are a number of factors are available those influences the volatility of the financial market. Lack of insights on those factors in this case is the one which is responsible most. A highly volatile environment is such a common attribute of a country's financial market. Not only in Bangladesh but also around the globe financial market shows its ever-changing behavior on a regular basis. Sometimes its impacts are too damaging that firms cannot absorb it. Individuals, firms, and different types of corporations gone out of the financial track due to the pattern of highly volatile market. Eventually, it drives to financial and social devastation. Uncontrolled, damaging, and unpredictable financial market has the power to impact on the economy at its worst. So, taking precautions is needed to be as obvious as its risks.

A controlled and understandable financial market can also provide both profit maximization, and wealth maximization in the short – run, and long – run respectively to the firms. So, some proper missions can help to get some effective insights to deal with the ever-changing element of the economy. These are, As numerous financial factors are responsible for influencing the volatility of the financial market, understanding those factors can assist to create an overview of the

circumstance. Not every single available element impacts the financial arena at a same level. Some of those have drastic power over it, while others do not have. So, in-depth insights of those factors, and the way they perform either the negative or the positive role should be a matter of great concern. Controlling and taking proper steps depending on the market conditions can play a significant role in terms of generating solid judgments.

This study can be significant in the sense that not that much research has been conducted the way this paper is approaching. As a result, this study will satisfy the target to contribute, and generate value on this type of analysis. To specify more, we have two (02) major objectives in this regard.

1. A firm's core intention is to generate profit maximization in the short – run, wealth maximization in the long – run. In this way, firms depend on various types of factors, and working on those attributes to increase at their desired state. For example, the Stock price of a firm.
2. Not every single available element impacts the financial arena at a same level. Some of those have drastic power over it, while others do not. So, understanding the most significant factors, and the way they influence the performance indicators can be an issue of big concern.

Methodology

The analysis of the research is conducted based on OLS (Ordinary Least Square) Regression Model. The Ordinary Least Squares (OLS) regression model is a fundamental statistical technique used for estimating the relationship between one dependent variable and one or more independent variables. It is widely used in econometrics, finance, and various fields of science to understand and predict the behavior of variables.

There are more than four hundred organizations involved in the stock market (DSE – Dhaka Stock Exchange). Out of these organizations thirty organizations has been selected to the study based on the availability of required data, and the significance of that particular organization in the economy of the country. That economic significance has been considered in how renowned and well established the firm is in the financial market. After the attack of COVID – 19 pandemic, still there were some economical unrest around the globe, so in Bangladesh. As a result, the research is conducted on the data of the year end of 2022. And the financial market

data of those Bangladeshi DSE (Dhaka Stock Exchange) firms is collected from the Wall Street Journal.

To analyze the financial, and stock market condition of an organization, not all the insights are required to do that, rather some significant factors to draw an absolute story. For instance, Earnings Per Share (EPS), Price Per Earnings Ratio (PER), Return on Equity (ROE), Return on Asset (ROA), Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), and so on. After studying the existing literature EPS, PER, ROE, ROA, DAR, and DER has been considered as the most significant factors, and took those into account in the study.

As OLS Regression Model has been implemented, the basic assumptions need to be fulfilled. The dependent variable and the independent variables must be linear in the coefficients (parameters). This does not necessarily mean that the relationship between the dependent and independent variables themselves must be linear; rather, it means that the model must be a linear combination of the parameters.

A model is linear in parameters if it can be expressed in the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k + \epsilon$$

Y is the Dependent Variable. The parameters (Coefficient) are $\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k$. The independent variables are $X_1, X_2, X_3, \dots, X_k$, and ϵ is the error term.

The assumption of random sampling in OLS regression asserts that the data used in the model are drawn from the population using a random sampling method. This means each observation in the sample is independent and identically distributed, and every possible sample of a given size has an equal chance of being selected.

Zero Conditional Mean indicates that, The error u has an expected value of zero given any value of the explanatory variable. In other words, $E(u|x) = 0$.

Homoskedasticity indicates, The error u has the same variance given any value of the explanatory variable. In other words, $\text{Var}(u|x) = \sigma^2$. OLS Regression assumes that the error term (u_i) in the regression model has homoscedasticity (equal variance) across observations, denoted by σ^2 .

Eventually, to justify the relevance, and the credibility of the used model, we conducted tests like Jarque – Bera (JB) Normality Test, Ramsey Reset Test, White Test, and Breusch - Godfrey Serial Correlation LM test for there individual purpose to the analysis of the study.

Literature Review with Hypothesis Development

Stock Price As An Indicator of Financial Performance: One of the vital objectives of the study is to understand a firm's financial performance depending on the factors that manipulate the selected indicator of financial performance. We have selected the variable namely "Stock Price" as our dependent variable. The stock market price is the stock price determined by the interaction of market participants on the demand and supply of a share. The price reflects the stock price that occurs in the stock market at a given moment. Stock prices should reflect a company's financial performance. When a company's financial performance increases, the market will appreciate with rising stock prices, and vice versa. In other words, the company's financial performance should be reflected in the stock price. If the financial performance increases, then the tendency of shares of the company will be favored by investors, thus encouraging the increase in stock price [1], [2], [3]. Some financial literature states that stock prices should reflect a company's financial performance. The higher the stock price reflects the company's financial performance is also higher. In other words, the higher the financial performance of a company, the higher the stock price level in the stock market [2]. The stock price is the current price of the share listed/ traded on the stock exchange determined by market participants and by the demand and supply of the relevant shares in the capital market. The stock price of a company reflects the value of the company for the investors so that high stock prices attract the attention of investors to invest capital in the company [4]. Stock is a component in the capital market and is often traded in the stock market compared to other members. Shares are also intended as a place for companies to obtain additional capital and for investors or investors to benefit from the company through dividends and capital gains. One indicator of a company's success is that it can be seen in its stock price. If the demand for the company's shares increases, the issuer's share price will increase [5].

Therefore, based on the literature we can say that Stock Price can represent the financial performance of a firm.

Earnings-Per-Share (EPS): EPS stands for Earnings Per Share, a financial metric calculated by dividing a company's net earnings by its total number of outstanding shares, representing the portion of profit attributable to each share. While a company's EPS will often influence the market price of its stock, the relationship is rarely inverse. The company's EPS is determined by

dividing the earnings by the number of outstanding shares. The market price of each share is immaterial. Few things in the investment world operate in a vacuum and stock price and EPS are no exceptions. A company with strong earnings per share might see the market price of its stock rise. This higher stock price might create a positive impression of the company's products in the minds of customers, resulting in greater demand, increased sales and ultimately higher earnings. The inverse might also occur. Poor EPS might depress stock prices resulting in lower consumer confidence, fewer sales and ultimately lower earnings per share. EPS, a key measure of profitability, directly influences firm performance by indicating the company's ability to generate earnings per outstanding share. A higher EPS often correlates with stronger financial performance, attracting investors and potentially boosting stock prices. Companies with consistently rising EPS may signal growth potential and financial stability, fostering investor confidence and enhancing market competitiveness. However, a declining or volatile EPS may raise concerns about profitability and hinder investor sentiment, affecting stock valuation and long-term performance. Therefore, maintaining a healthy and growing EPS is critical for sustaining firm performance and shareholder value.

Hypothesis 1 (H1) : EPS might have a significant impact on SP.

Price Per Earnings (P/E) Ratio: P/E ratios are ratios of share prices to earnings. The P/E ratio of a stock is equal to the price of a share of the stock divided by per share earnings of the stock [14]. The PER ratio is a measure that is always a benchmark in determining the exact price of a company's shares. A high PER value indicates that the value of inventory is more expensive. Many researchers have used PER as a determinant of stock returns and found a decisive relationship between them [7]. [14] Finds strong historical evidence that high price - earnings ratios have been followed by disappointing stock market performance in the short and long term. Specifically, high price-earnings ratios have been followed by slow long-run growth in stock prices. Moreover, when high price-earnings ratios have reduced the earnings yield on stocks relative to returns on other investments, short-run stock market performance has suffered as well. Despite this evidence, however, we cannot rule out the possibility that these historical relationships are of little relevance today due to fundamental changes in the economy. According to, [14] Some economists argue that today's high P/E ratio signals slower growth in stock prices not only in the long term but also in the short term. These economists believe short-term stock

market performance can be predicted by comparing the inverse of the P/E ratio, commonly known as the earnings yield, to some measure of market interest rates. They argue that when the spread between the earnings yield and market rates is very low, as has been the case recently, stock prices tend to fall over subsequent weeks or months. Moreover, at times such as the present when high price-earnings ratios have reduced the earnings yield on stocks relative to interest rates, stock prices have also tended to grow slowly in the short run. Forecasts based on such evidence are subject to much uncertainty, however, because history may not repeat itself. Specifically, the possibility cannot be ruled out that this time will be different due to fundamental changes in the economy that will allow high price-earnings ratios to persist and thus stock prices to continue growing both in the near term and in the coming decade.

Hypothesis 2 (H2) : PER can make a significant influence on SP.

ROE: According to Brigham and Houston (2010) The ratio of net income to ordinary equity is a ratio that measures the rate of return on ordinary shareholder investment. According to McLean (2003) The Return on Equity Ratio also measures the organization's ability to pay a return to its equity holders and is defined as net income dividend by owners' equity. Return on Equity measures the ability of firms to provide returns for shareholders and is defined as dividends in net income over equity holdings. When a company has a good ability to provide returns on stock ownership, it indirectly will make investors have more confidence in the company. This will affect investors to invest so that stocks are in great demand and the company's stock price will increase [6] the high and low stock prices can be seen in a company's financial performance. If a company has a sound financial record and financial performance, investors or investors will be interested in investing because It can ascertain that they will benefit. This ratio examines the extent to which a company uses its resources to be able to provide a return on equity [5].

Hypothesis 3 (H3) : ROE can be a significant factor in influencing SP.

ROA: ROA shows how effectively the company can make use of its assets to get maximum profit. ROA is measured by the ratio of net income to company assets. A high ROA means the business can utilize its resources well in generating income. A higher income means better returns to investors which impacts the stock price [4]. ROA can be used to assess the strength of a company to fund all investments in assets that support production activities to obtain optimal

profits. The higher the ROA, the greater the potential that production activities run efficiently and are able to gain maximum profit. High ROA performance indicates a high level of productivity in the use of assets in obtaining net income so that a company's shares will be more profitable for investors because it will provide greater returns for investors [7], [8], [9], [10], [11]. Return on Assets (ROA) is one indicator of the company's success in generating profits so that the higher the profitability, the higher the ability to generate profits for the company. The company's ability to generate profits in operating activities focuses on assessing company performance. Profit is an indicator of the company's ability to fulfill obligations to creditors and investors and is a part of the company's value-creation process related to the company's prospects in the future. Return on Assets (ROA) can measure the company's ability to generate profits by using the total assets owned by the company after adjusting for the costs used to fund these assets, such as development costs and employee management in improving the intellectual property [5] High profitability shows good company prospects so that investors will respond positively to these signals prompting the increase of firm value. This is understandable because the company that managed to record increased profits indicates that the company has a good performance that generates a positive sentiment for investors and increase the company's stock price [12]. According to [13], finding that profitability ratio as measured by ROA has a significant effect on firm value.

Hypothesis 4 (H4) : ROA can impact SP significantly.

Debt to Asset Ratio: The debt-to-asset ratio is a financial metric used to evaluate a company's leverage and financial risk. It measures the proportion of a company's assets that are financed by debt, indicating the extent to which creditors have claims on the company's assets compared to equity holders. A higher debt-to-asset ratio suggests higher financial risk, as a larger portion of the company's assets is funded by debt, potentially increasing interest payments and reducing financial flexibility. Conversely, a lower ratio indicates a lower level of debt relative to assets, which may imply lower financial risk and greater stability. Debt to Asset ratio is performed to measure how much the company's assets are financed by debt or how much the company's debt affects its asset management [17]. The higher the debt ratio, the greater the probability of the company not able to pay off its obligations, and eventually it will lead to poor firm performance [12]. According to [18] The debt ratio is the ratio of the total debt of a company-to-company

assets. The lower the debt ratio, the lower the source of financing through debt. Conversely, the higher the debt ratio, the higher the source of financing through debt.

Hypothesis 5 (H5) : SP can be impacted by DAR.

Debt to Equity Ratio: The DER ratio is calculated using the ratio of total debt divided by the total value of equity held by shareholders. The higher the DER, the greater the company's dependence on outsiders so the risk level of the company is more vulnerable in meeting its debt, namely paying the principal debt plus interest. A high DER value has the opposite effect on falling stock prices. This also shows that DER has a negative influence on SR [7], [19]. When the value of Debt-To-Equity Ratio is low then the higher the level of corporate funding provided by the shareholders and the greater the protection for creditors. [20] Stated that if the debt-to-equity ratio is high, the owners are putting up relatively less money of their own. It is a danger signal for the creditor. If the project should fail financially, the creditors would lose heavily. Based on the above theory, if the debt-to-equity ratio is high, the owners make relatively little money. This is a danger signal for creditors. On the contrary, when the low DER value will increase the positive response of the market and the better the company's ability to pay long-term liabilities because the risks arising from the use of funding derived from debt will be reduced, thus affecting the increase in stock prices [6]. According to Gazpersz (2012), the higher value of this ratio shows higher financial risk for shareholders. Jabbari and Fathi (2014), and Basalama et al (2017), who revealed that debt to equity ratio had positive and significant impact to stock market return. On the other hand, Acheampong et al. (2014), and Abdullah et al. (2015), concluded that debt to equity ratio had negative and significant impact to stock market return.

Hypothesis 6 (H6) : DER might have prominent influence on SP.

Empirical Analysis:

Descriptive Statistics: The table below describes the overall statistical condition of the data set. SP is the dependent variable, and rest of the variables are independent. SP, EPS, PER, and DER are the direct values according to the available data. Whereas ROE, ROA, and DAR are in percentage form. And this matter will be counted while the interpretation of the analysis will take place.

	SP	EPS	PER	ROE	ROA	DAR	DER
Mean	93.40	6.53	17.98	15.96	6.51	61.20	3.90
Median	60.52	3.92	11.90	13.22	5.06	57.56	1.36
Maximum	518.70	33.10	65.67	82.37	40.61	93.81	15.16
Minimum	12.45	0.30	6.02	0.60	0.18	15.91	0.20
Std. Dev.	105.73	6.69	14.80	14.70	7.80	22.94	4.79
Skewness	2.58	2.33	1.89	3.23	3.02	0.01	1.34
Kurtosis	10.15	9.38	6.03	15.10	13.53	1.93	3.27

Table 1: Descriptive Statistics

Starting from SP, The high skewness and kurtosis indicate that there are some very high share prices that create a long tail to the right and a sharp peak, indicating a few companies have significantly higher share prices than the rest. The average share price is 93.40, but the median is much lower at 60.52, indicating that the distribution is skewed to the right. The high maximum value of 518.70 and the positive skewness (2.58) indicate the presence of a few companies with very high share prices, creating a long right tail. The high kurtosis (10.15) suggests that these high values are outliers indicates different types of organizations were included in the study and SP varies firm to firm, also will help to establish decision based on multi – dimensional point of view. The average EPS is 6.53, with a median of 3.92, showing that the distribution is skewed to the right. The high skewness (2.33) and kurtosis (9.38) indicate that most companies have lower EPS, with a few having much higher EPS, creating a long right tail and sharp peak. The average P/E ratio is 17.98, while the median is 11.90. The positive skewness (1.89) and kurtosis (6.03) suggest that most companies have lower P/E ratios, but there are some with very high P/E ratios, indicating high growth expectations. The average ROE is 15.96, with a median of 13.22. The very high skewness (3.23) and kurtosis (15.10) indicate that while most companies have

moderate ROE, a few have extremely high ROE, creating a very long right tail and sharp peak. With an average ROA of 6.51 and a median of 5.06, the distribution is highly positively skewed (3.02), indicating that while most companies have lower ROA, a few have significantly higher returns. The maximum ROA of 40.61, along with a high standard deviation (7.80), reflects considerable variation among companies, with outliers driving the mean upwards. The mean DAR is 61.20, and the median is 57.56, with near-zero skewness (0.01) and moderate kurtosis (1.93). This suggests a relatively symmetric distribution around the mean. The approximately symmetric skewness and moderate kurtosis suggest that the DAR values are fairly evenly spread without extreme outliers. The maximum DER of 15.16 and the standard deviation of 4.79 reflect a wide range of values, with some companies being highly leveraged. The average DER is 3.90, with a median of 1.36. The positive skewness (1.34) indicates that while most companies have lower debt to equity ratios, a few have significantly higher ratios.

Robustness Test: Jarque – Bera Normality Test: The Jarque-Bera normality test is a statistical test that assesses whether sample data have the skewness and kurtosis matching a normal distribution.

- Null Hypothesis (H_0): The residuals are normally distributed.
- Alternative Hypothesis (H_1): The residuals are not normally distributed.

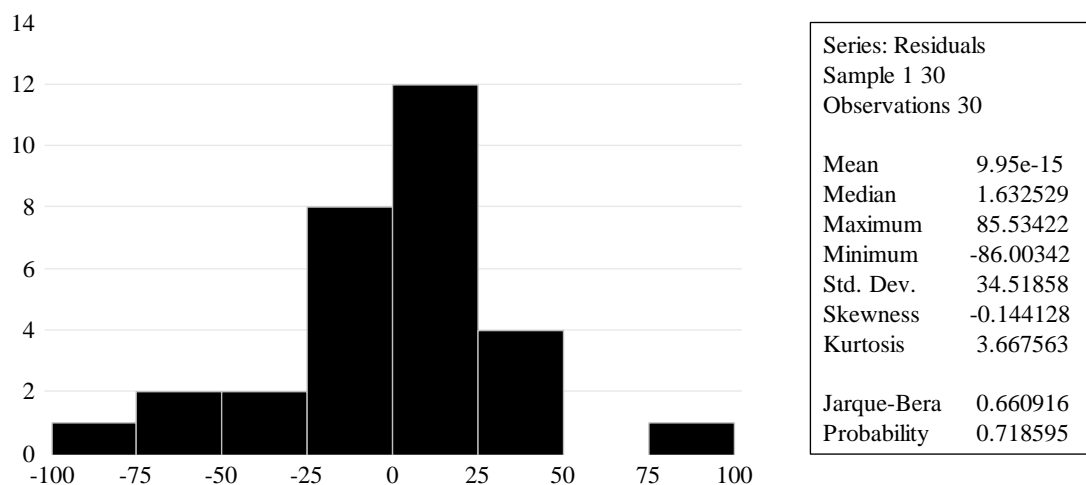


Figure 1: Jarque – Bera Normality Test

The Jarque-Bera test is used to determine whether the sample data has the skewness and kurtosis matching a normal distribution. We found that the p-value (0.718595). Since the p-value is much greater than the common significance levels (0.05, 0.01), we fail to reject the null hypothesis. This means there is no strong evidence against the null hypothesis, so we conclude that the residuals are normally distributed.

Model Specification Test: Ramsey – Reset Test: The Ramsey RESET test involves adding higher-order terms of the predicted values (fitted values) to the regression model and testing their significance. If these terms are statistically significant, it indicates that the model may be missing key variables or is incorrectly specified.

- Null Hypothesis (H_0): The regression model has no omitted variables (is correctly specified).
- Alternative Hypothesis (H_1): The regression model has omitted variables (is incorrectly specified).

	Value	df	Probability
t-statistic	1.51	22	0.15
F-statistic	2.28	(1, 22)	0.15
Likelihood ratio	2.96	1	0.09

Table 2: Ramsey – Reset Test

The p-values from the t-statistic (0.15), F-statistic (0.15), and likelihood ratio test (0.09). Since all p-values are greater than 0.05, we fail to reject the null hypothesis for each test. There is no strong evidence to suggest that the model is misspecified or that significant variables are omitted. Thus, based on the Ramsey RESET test results, we can reasonably conclude that the regression model appears to be correctly specified with no significant omitted variable bias.

Detection of Heteroskedasticity: White Test: The White test is used to detect heteroskedasticity in regression models. It evaluates whether the variance of errors in the model is constant or if it changes systematically with the level of the explanatory variables.

- Null Hypothesis (H_0): The errors in the regression model are homoskedastic, meaning their variance is constant across all levels of the explanatory variables.
- Alternative Hypothesis (H_1): The errors are heteroskedastic, meaning their variance changes systematically with the level of the explanatory variables.

F-statistic	35.55045	Prob. F(26,3)	0.0065
Obs'R- Squared	29.90295	Prob. Chi - Square (26)	0.2717
Scaled Explained SS	23.44293	Prob. Chi - Square (26)	0.6078

Table 3: White Test

Obs'R-Squared = 29.90295, Prob. Chi-Square (26) = 0.2717. The Obs'R-Squared statistic is another way to test for heteroskedasticity. It is derived from the regression of squared residuals on the explanatory variables. The p-value of 0.2717 is above common significance levels. This suggests that the null hypothesis of homoskedasticity cannot be rejected based on this statistic alone, indicating that there may not be significant evidence of heteroskedasticity according to this test.

Scaled Explained SS = 23.44293, Prob. Chi-Square (26) = 0.6078. The Scaled Explained Sum of Squares statistic also tests for heteroskedasticity by comparing the explained variance in the squared residuals to the total variance. The p-value of 0.6078 is quite high, indicating that there is no strong evidence of heteroskedasticity according to this measure.

Detection of Serial Auto – Correlation: Breusch - Godfrey Serial Correlation LM test: The Breusch-Godfrey Serial Correlation LM (Lagrange Multiplier) test is used to detect serial correlation (autocorrelation) in the residuals of a regression model.

- Null Hypothesis (H_0): There is no serial correlation in the residuals (i.e., the residuals are not autocorrelated).
- Alternative Hypothesis (H_1): There is serial correlation in the residuals (i.e., the residuals are autocorrelated).

F-statistic	0.581229	Prob. F(2,21)	0.5680
Obs'R - Squared	1.573551	Prob. Chi - Square (2)	0.4553

Table 4: Breusch - Godfrey Serial Correlation LM test

F-statistic = 0.581229, Prob. F(2,21) = 0.5680. The F-statistic tests whether there is significant serial correlation in the residuals. The p-value associated with this F-statistic (0.5680) is quite high. This suggests that we failed to reject the null hypothesis of no serial correlation. In other words, there is no significant evidence of autocorrelation in the residuals based on this test. Obs'R-Squared = 1.573551, Prob. Chi-Square (2) = 0.4553. The Obs'R-Squared statistic is another measure for testing serial correlation. The p-value associated with this statistic (0.4553) is also high. This implies that we cannot reject the null hypothesis of no serial correlation. Hence, there is no strong evidence of autocorrelation in the residuals according to this measure.

OLS Regression Model Result:

Variables	Coefficient	Std. Error	t - Statistic	Probability
EPS	12.22386	1.923667	6.354457	0.0000
PER	3.271031	0.557565	5.866639	0.0000
ROE	6.343665	2.046560	3.099672	0.0051
ROA	-9.767889	4.304933	-2.268999	0.0330
DAR	-2.014646	0.879409	-2.290910	0.0315
DER	4.329772	3.296101	1.313604	0.2019
C	23.51985	42.11268	0.558498	0.5819
R - Squared	0.893412	Mean Dependent Var		93.39767
Adjusted R - Squared	0.865606	S.D. Dependent Var		105.7299

Table 5: OLS Regression Model Result

OLS Regression Model:

$$SP = 12.22*EPS + 3.27*PER + 6.34*ROE - 9.77*ROA - 2.01*DAR + 4.33*DER + 23.52$$

In the OLS Regression model one dependent variable (SP), and six independent variables (EPS, PER, ROE, ROA, DAR, and DER) has been considered as factors those might impact on the dependent variable (SP). SP, EPS, PER, and DER are the direct values according to the available data. Whereas ROE, ROA, and DAR are in percentage form.

EPS reflects the profitability of a company, indicating how much profit is allocated to each share of common stock. In this model, for every 1-unit increase in EPS, the stock price (SP) increases by 12.22 units. This substantial coefficient signifies that EPS is a crucial determinant of stock price, as higher earnings per share directly enhance investor confidence, driving the stock price upwards.

PER measures how much investors are willing to pay per unit of earnings. A positive coefficient of 3.27 indicates that a 1-unit increase in PER results in a 3.27-unit increase in the stock price. This suggests that higher market valuation (higher PER) corresponds with a higher stock price, as investors expect continued growth and profitability.

ROE indicates how efficiently a company is using its equity to generate profit. In percentage terms, a 1% increase in ROE leads to a 6.34-unit increase in the stock price. This positive relationship highlights that companies with higher ROE are valued more highly by the market, as they effectively generate higher returns from shareholders' equity.

ROA reflects how efficiently a company uses its assets to generate profit. However, in this model, a 1% increase in ROA leads to a 9.77-unit decrease in stock price. This inverse relationship suggests that, in this context, higher ROA might be associated with factors like asset intensity or lower market growth expectations, which could negatively impact the stock price. Typically, a higher ROA is considered a positive indicator, as it reflects a company's efficiency in using its assets to generate profit. However, in this model, a higher ROA is associated with a decrease in stock price. This could mean that in the context of our data, companies with higher ROA might be asset-intensive, potentially leading to lower returns on investment or lower growth prospects, which investors may view negatively. Alternatively, it could reflect a scenario where companies with lower ROA are investing more aggressively in growth or innovation, which might be more appealing to investors despite lower current returns on assets.

DAR shows the proportion of assets financed by debt. A negative coefficient of -2.01 implies that a 1% increase in DAR leads to a 2.01-unit decrease in stock price. This suggests that higher leverage, indicated by a higher DAR, is perceived as riskier by the market, potentially leading to a decline in stock price. A higher DAR indicates a higher proportion of a company's assets are financed through debt. The negative coefficient suggests that the market perceives a higher DAR as increasing financial risk, which could lead to a decrease in stock price. Investors might be concerned that companies with higher debt levels relative to their assets are more vulnerable to financial distress, especially during economic downturns or periods of high-interest rates. This perception of increased risk could lead to lower stock prices as investors demand a higher risk premium or avoid investing in such companies altogether.

DER measures the extent of a company's financial leverage relative to shareholders' equity. With a positive coefficient of 4.33, a 1-unit increase in DER is associated with a 4.33-unit increase in stock price. This indicates that in this model, higher leverage (as measured by DER) is seen as favorable, possibly due to the potential for higher returns that come with effective use of debt.

The high R^2 of 89.34% and the closely aligned Adjusted R^2 of 86.56% indicate that the regression model effectively explains the majority of the variance in stock price. The model demonstrates a strong fit to the data, with highly relevant predictors. The minimal difference between R^2 and Adjusted R^2 suggests that the model is well-balanced, and the inclusion of predictors enhances its explanatory power without overfitting. This combined interpretation highlights the model's effectiveness in capturing stock price movements and its robustness in terms of variable inclusion.

Variables	Hypothesis	Coefficient	P - Value	Decision	
				Remark	Impact
EPS	H1	12.22386	0.0000	Significant	Positively
PER	H2	3.271031	0.0000	Significant	Positively
ROE	H3	6.343665	0.0051	Significant	Positively
ROA	H4	-9.767889	0.0330	Significant	Negatively
DAR	H5	-2.014646	0.0315	Significant	Negatively
DER	H6	4.329772	0.2019	Insignificant	Positively

Table 6: OLS Regression Model Decision

The p-value of 0.0000 is far below the 0.05 threshold, indicating that EPS has a statistically significant and strong impact on the stock price. The very low p-value means that there is almost no chance that the relationship between EPS and stock price is due to random variation. EPS is a critical determinant of stock price in this model.

The p-value of 0.0000 indicates that PER also has a statistically significant impact on stock price. Like EPS, the PER's effect on the stock price is very unlikely to be due to random chance. This suggests that the market's valuation of a company (as reflected in PER) is an important factor in determining its stock price.

The p-value of 0.0051 is below 0.05, indicating that ROE has a statistically significant effect on the stock price. This implies that higher ROE, which reflects greater profitability from

shareholders' equity, is likely to lead to higher stock prices. The significance of ROE shows that investors value companies that efficiently generate profit from equity.

With a p-value of 0.0330, ROA is statistically significant at the 5% level. Despite its negative coefficient, the significance suggests that changes in ROA do have a meaningful impact on stock price. The negative relationship, combined with its statistical significance, may indicate that higher ROA is associated with other factors that the market views unfavorably.

The p-value of 0.0315 indicates that DAR is statistically significant. This significance suggests that the relationship between DAR and stock price is not due to chance. The negative coefficient, combined with this significance, confirms that higher leverage (as measured by DAR) negatively impacts stock price, likely due to perceived increased financial risk.

The p-value of 0.2019 is above the 0.05 threshold, indicating that DER is not statistically significant in this model. This means that the relationship between DER and stock price may not be strong enough to be distinguished from random variation. In other words, changes in DER may not have a reliably measurable impact on stock price in this context.

Conclusion:

The OLS regression model reveals crucial insights into the factors affecting SP through the lens of various financial ratios. EPS and PER exhibit statistically significant positive relationships with stock price. The high significance of EPS underscores its role as a fundamental indicator of a company's profitability and financial health, which is highly valued by investors. Similarly, PER reflects market expectations about future growth relative to earnings; a higher PER indicates favorable investor sentiment, driving up stock prices. ROE and DAR also show significant effects on stock price. ROE, representing the efficiency of equity utilization, positively influences stock price, suggesting that companies demonstrating strong profitability relative to shareholders' equity are rewarded with higher market valuations.

Conversely, DAR reflects financial leverage; a higher DAR indicates increased reliance on debt, which raises financial risk and can lead to lower stock prices. ROA, despite its negative coefficient, is statistically significant. This inverse relationship suggests that while ROA typically measures asset efficiency, higher ROA in this model may be associated with adverse market perceptions, possibly due to other underlying factors impacting stock price. DER and the

constant term do not show statistical significance. This implies that DER does not have a reliable impact on stock price within this model, and the constant term does not contribute meaningfully to explaining stock price variations.

For investors it will be better to emphasize EPS, PER, ROE, and DAR when assessing investment opportunities, given their significant impact on stock price. EPS and PER, in particular, are critical indicators of company performance and market valuation.

And for companies, improving EPS and PER while managing leverage prudently can enhance stock price. Additionally, understanding the potential implications of ROA and DAR can aid in strategic financial decisions and effective communication with investors.

Overall, this analysis highlights the importance of specific financial ratios in determining stock price, and the financial market analysis on the performance of stock market in Bangladesh, which provides a theoretical framework for interpreting their effects on market valuation.

References:

- [1] Z. Puspitaningtyas, "Is Financial Performance Reflected in Stock Prices?," 2017.
- [2] M. C. Ehmhardt, M. Richardson, T.-S. Sun, Y. Chuan Chen, and S. Chun, "Husnan, Suad, Dasar-Dasar Teori Portofolio dan Analisis Sekuritas," Edisi Ketiga, 1994. [Online]. Available: <http://etd.repository.ugm.ac.id/>
- [3] A. A. Ragab and M. M. Omran, "Accounting information, value relevance, and investors' behavior in the Egyptian equity market," *Review of Accounting and Finance*, vol. 5, no. 3, pp. 279–297, Jul. 2006, doi: 10.1108/14757700610686444.
- [4] F. Sukesti, I. Ghozali, F. Fuad, A. K. Almasyhari, and N. Nurcahyono, "Factors Affecting the Stock Price: The Role of Firm Performance," *Journal of Asian Finance, Economics and Business*, vol. 8, no. 2, pp. 165–173, 2021, doi: 10.13106/jafeb.2021.vol8.no2.0165.
- [5] F. Saputra, "Analysis Effect Return on Assets (ROA), Return on Equity (ROE) and Price Earning Ratio (PER) on Stock Prices of Coal Companies in the Indonesia Stock Exchange (IDX) Period 2018-2021", doi: 10.38035/dijefa.v3i1.
- [6] E. Asmirantho dan Oktiviani Kusumah Somantri, E. Asmirantho, and O. Kusumah Somantri, "THE EFFECT OF FINANCIAL PERFORMANCE ON STOCK PRICE AT PHARMACEUTICAL SUB-SECTOR COMPANY LISTED IN INDONESIA STOCK EXCHANGE," *Jurnal Ilmiah Akuntansi Fakultas Ekonomi*, vol. 3, no. Tahun, pp. 94–107, 2017.
- [7] E. Endri, D. Dermawan, Z. Abidin, S. Riyanto, and M. Manajemen, "Effect of Financial Performance on Stock Return: Evidence from the Food and Beverages Sector." [Online]. Available: www.ijicc.net
- [8] M. Saleh, "Relationship between Firm's Financial Performance and Stock Returns: Evidence from Oil and Gas Sector Pakistan," vol. 5, no. 10, 2015, [Online]. Available: www.iiste.org
- [9] J. A. Wijaya, "The Effect of Financial Ratios toward Stock Returns among Indonesian Manufacturing Companies," 2015.
- [10] . H., "Effect of Liquidity and Profitability to Bank Stock Return in Indonesia Stock Exchange (IDX)," *International Journal of Academic Research in Accounting, Finance and Management Sciences*, vol. 6, no. 3, Jul. 2016, doi: 10.6007/ijarafms/v6-i3/2219.
- [11] S. Muhammad, "The Relationship Between Fundamental Analysis and Stock Returns Based on the Panel Data Analysis; Evidence from Karachi Stock exchange (KSE)," Online, 2018. [Online]. Available: www.iiste.org

- [12] A. Husna and I. Satria, "EFFECTS OF RETURN ON ASSET, DEBT TO ASSET RATIO, CURRENT RATIO, FIRM SIZE, AND DIVIDEND PAYOUT RATIO ON FIRM VALUE," *International Journal of Economics and Financial Issues*, vol. 9, no. 5, pp. 50–54, Sep. 2019, doi: 10.32479/ijefi.8595.
- [13] M. Terpstra and F. H. M. Verbeeten, "Customer satisfaction: Cost driver or value driver? Empirical evidence from the financial services industry," *European Management Journal*, vol. 32, no. 3, pp. 499–508, 2014, doi: 10.1016/j.emj.2013.07.001.
- [14] Pu Shen, "The P/E Ratio and Stock Market Performance." Accessed: May 17, 2024. [Online]. Available: <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=99cdd22a2ea2b0e7215efb5bdee3eab690683842>
- [15] A. P. Mtunya, P. Ngare, and Y. Nkansah-Gyekye, "On Steady Dividend Payment under Functional Mean Reversion Speed," *Journal of Mathematical Finance*, vol. 06, no. 03, pp. 368–377, 2016, doi: 10.4236/jmf.2016.63030.
- [16] B. Christina Marito and A. Dewi Sjarif, "The Impact of Current Ratio, Debt to Equity Ratio, Return on Assets, Dividend Yield, and Market Capitalization on Stock Return (Evidence from Listed Manufacturing Companies in Indonesia Stock Exchange)," *Scientific Journal of PPI-UKM Social Sciences and Economics*, vol. 7, no. 1, 2020, doi: 10.27512/sjppi-ukm/ses/a11052020.
- [17] M. Vatansever and A. Hepşen, "Determining Impacts on Non-Performing Loan Ratio in Turkey," online) Scienpress Ltd, 2013.
- [18] Siahaan Elisabeth, Gultom Parapat, and Lumbanraj Prihatin, "Improvement of Employee Performance Based on Competency Improvement and Placement Working Through Career Development (Case Study in Indonesia)," *International Business Management*, vol. 10, no. 3, pp. 255–261, 2016, Accessed: May 17, 2024. [Online]. Available: <https://docsdrive.com/?pdf=medwelljournals/ibm/2016/255-261.pdf>
- [19] B. Ria, "THE IMPACT OF CAPITAL STRUCTURE AND FINANCIAL PERFORMANCE ON STOCK RETURNS OF THE FIRMS IN HOSE *Trần Nha Ghi." [Online]. Available: www.cophieu68.com
- [20] Khan MY and P K Jain, Eds., *Financial-Management*. New Delhi, India : Mc. Graw Hill.
- [21] -Dr Mohammad Reza Bagherzadeh, -Saeid Safania, -Mahboobeh Roohi, and -Assistant Professor, "Relationship between Current ratio and Share Price-a study on NSE, INDIA (2009-2012)," *Int Jr. of Mathematical Sciences & Applications*, vol. 3, no. 1, [Online]. Available: www.journalshub.com

Appendix:

S.N	Firms Name
1	ACI Formulations Limited - ACIFORMUL
2	ACME Laboratories Limited - ACMELAB
3	Agrani Insurance Company Limited - AGRANINS
4	Apex Foods Limited - APEXFOODS
5	Apex Footwear Limited - APEXFOOT
6	Bangladesh Export Import Company Ltd - Beximco
7	Bangladesh General Insurance Company Limited - BGIC
8	Bangladesh National Insurance Company Limited - BNICL
9	Bangladesh National Shipping Corporation - BSC
10	Bangladesh Steel Re-Rolling Mills Limited - BSRMLTD
11	Baraka Power Ltd - BARAKAPOWER
12	Beximco Pharmaceuticals Ltd. - BEXIMCO
13	BRAC Bank Ltd. - BRACBANK
14	British American Tobacco Bangladesh Company Ltd. - BATBC
15	BSRM Steels Ltd - BSRMSTEEL
16	City Bank Limited - CITYBANK
17	Delta Brac Housing Finance Corporation Limited - DBH
18	Dhaka Bank Limited - DHAKABANK
19	Dutch-Bangla Bank Ltd - DUTCHBANGL
20	Eastern Bank Limited - EBL
21	Federal Insurance Company Limited - FEDERALINS
22	Global Insurance Limited - GLOBALINS
23	Hwa Well Textiles (BD) Ltd. - HWAWELLTEX
24	Islami Insurance Bangladesh Ltd - ISLAMINS
25	Islamic Finance and Investment Limited - ISLAMICFIN

- 26 Jamuna Oil Company Limited - JAMUNAOIL
- 27 KDS Accessories Limited - KDSAL
- 28 Lafarge Holcim Bangladesh Ltd - LHBL
- 29 Mercantile Bank Limited - MERCANBANK
- 30 Orion Pharma Limited - ORIONPHARM

THE END