



The relationship between performance indicators and share prices of companies listed on sharia indices: a case study of S&P BSE 500 sharia index

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ARTICLE INFO

Article history:

Received:

2023-08-06

Revised: 2023-09-18

Accepted:

2023-09-19

Keywords:

Bombay Stock

Exchange;

Performance

Indicators; Price;

Share; S&P BSE

500 Sharia; Stock

Exchange.

Exchange, India

ABSTRACT

This study aims to empirically examine the relationship between performance indicators and share prices of companies listed on the S&P BSE 500 Sharia index. Data were collected through the index's closing price and financial reports of the ten top companies listed on the S&P BSE 500 Sharia index. This study identifies the most critical indicators that affect share prices in stock exchanges: ROA, ROE, EPS, and P/ER using the Panel method. The study findings indicate that EPS, ROA, and ROE have a non-significant impact on SP, while P/ER has a significant positive on SP. This study highlights the development of companies' performance indicators and the enhancement of investment strategies for stakeholders and investors. This study analyzes the relationship between the companies' performance indicators listed on sharia indices and their share prices.

Penelitian ini bertujuan untuk menguji secara empiris hubungan antara indikator kinerja dengan harga saham perusahaan yang tercatat pada indeks Syariah S&P BSE 500. Data dikumpulkan melalui harga penutupan indeks dan laporan keuangan dari sepuluh perusahaan teratas yang terdaftar di indeks Syariah S&P BSE 500. Studi ini mengidentifikasi indikator paling kritis yang mempengaruhi harga saham di bursa saham: ROA, ROE, EPS, dan P/ER menggunakan metode Panel. Temuan penelitian menunjukkan bahwa EPS, ROA, dan ROE memiliki dampak yang tidak signifikan terhadap SP, sedangkan P/ER memiliki dampak positif yang signifikan terhadap SP. Studi ini menyoroti pengembangan indikator kinerja perusahaan dan peningkatan strategi investasi bagi pemangku kepentingan dan investor. Penelitian ini menganalisis hubungan antara indikator kinerja perusahaan yang tercantum pada indeks syariah dengan harga sahamnya

How to cite:

Almonifi, Y. S. A., & Bhosle, V. K. (2023). The Relationship between Performance Indicators and Share Prices of Companies Listed On Sharia Indices. *Indonesian Journal of Islamic Economics Research*, 5(4), 48-61. DOI: <https://doi.org/10.18326/ijer.v5i4.9445>

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1. Introduction

The global economy is witnessing a shift from affluent economies to emerging economies such as India, which is currently considered the seventh largest economy with a GDP that reached more than 2 trillion US dollars. India has been growing at 6% and 7% annually over the last few years. Also, India is one of the fastest-growing economies in the world and is expected to be one of the three largest economies by 2050. India is poised for a growth rate that may exceed other countries, such as China and the rest of the world (S&P Global Ratings, 2022). In conjunction with the development of Islamic finance over the last four decades, the Islamic stock market began to grow from 1990 until 1999; there was no official Islamic index for measuring returns of Islamic equity funds. In 1999, Dow Jones and FTSE launched the Dow Jones Islamic Market Index (DJIMI) and FTSE Global Islamic Index Series. In addition to the Dow Jones Index and FTSE, MSCI Barra and Standard & Poor's currently offer a group of Islamic stock indices. Islamic indicators achieved an outperformance compared to conventional ones, especially during the mortgage crisis in the United States, and the dealing in the Islamic financial sector increased and became an alternative to traditional investment for more investors. To meet the increasing demand for Shariah-compliant products and investments, Shariah-compliant indices have been applied worldwide. In India, Standard & Poor's (S&P) launched the S&P BSE 500 Sharia in partnership with S&P Dow Jones and the Bombay Stock Exchange. BSE 500 comprises over 500 liquid and large stocks traded on the Bombay Stock Exchange (Habib & Islam, 2014).

In addition, Islamic stock markets offer diverse and attractive investment opportunities for local and international investors. Islamic indicators achieve high returns in stock markets, especially in Indian financial markets, compared to other indices. Information technology has become a significant factor in developing research and innovation in Islamic investment, providing data and various tools for analyzing economic activities. Stock exchanges serve as a fair investment market for all investors and contribute to economic growth. Therefore, S&P includes a list of companies that comply with Islamic Sharia, and the Sharia index aims to maximize wealth and enhance economic growth. In 2008, the Sharia Index was launched for the first time in partnership with S&P India Index Services and Products; there are two types of Sharia indices in Nifty – S&P CNX 500 Shariah and S&P CNX Nifty Shariah. Similarly, BSE TESIS Shariah 50 was operating under the Supervision of TESIS in 2008. In 2013, the Dow Jones Index was launched as the S&P BSE 500 Sharia Index in India in cooperation between BSE and S&P (Irfan & Dhimmarr, 2016).

As mentioned in Taqwaa Advisory and Shariah Investment Solutions (TASIS), many Shariah-compliant companies are listed on BSE and NSE that meet the approved screening criteria. In 2018, companies compliant with Islamic Shariah reached 1,329 out of 6,681 companies listed on the BSE and 551 out of 1,675 companies listed on the NSE. However, despite the high number of companies compliant with Islamic Shariah (Muthu and Agrawal 31), only three Shariah-compliant mutual funds in India are identified: Tata Ethical, Taurus Ethical, and Reliance ETF Shariah (Alam & Ansari, 2020).

Indian stock market is a global investment market open to institutional and direct foreign investment. BSE and NSE are part of the sustainable Indian financial market, with global investment infrastructures and databases. Relationships between Indian financial market indices (BSE and NSE),

And Sharia indices are related to a bilateral relationship with traditional index. Sharia indices achieve higher returns than benchmark indices (BSE and NSE). Therefore, the Sharia index aims to achieve social responsibility and integration between investors and society. Islamic finance deals with the capital market and with non-bank financial institutions and has a comprehensive financial system that provides easily interest-free loans; so, in December 2016, the Reserve Bank of India suggested opening Islamic finance windows because Islamic investment is an economical and viable solution for investors (Irfan & Tanwar, 2017). This study wants to analyze the relationship between performance indicators and companies' share prices listed on the Sharia indices.

2. Literature Review

2.1. Performance and Share Index

Stock price indices of companies in the stock exchanges are essential for researchers, investors, and economists alike, as they play a crucial role in financing and investments. Bashir (2003) states that the growth of capital and loan-to-asset ratios increases profitability, the presence of foreign bank branches increases profitability, and stock markets and banks are complementary. The relationship between the share price and the book value in the Saudi stock market was discussed by Tobergte & Curtis (2005), and the role of the Capital Market Authority in regulating the financial market was emphasized. Yusof & Majid (2007) concluded that fluctuation in interest rates is a cause of volatility in the traditional stock market but that there is no effect of such fluctuations on the Islamic stock market. Islamic investors require that the activities and structure of companies be Sharia-compliant according to a separate set of standards that better reflect the goals of Sharia-compliant rule-making and standards (Khatkhatay & Nisar, 2007). According to Dehuan (2008), the shares traded on the Shanghai Stock Exchange were affected by the operating performance indicators of the companies. Moss & Moss (2010) demonstrated that bank stock prices are sensitive to changes in interest rates. Airout & Airout (2017) mentioned that the increase in profits and reserves of banks, their capital, and their investments leads to the rise in the price of banks' shares in the stock exchanges.

Fadil (2021) investigated the factors that impede the development of the Islamic market and trade exchange between Islamic countries and confirmed that achieving economic integration among Islamic countries requires the establishment of a typical Islamic market. Uwuigbe et al. (2012) demonstrated a significant positive relationship between the financial performance of companies and share prices of companies listed on the Nigeria Stock Exchange and that financial performance, dividends, and that financial performance, dividends, and financial leverage are strong determinants of share prices. Panggabean (2019) further confirmed that the shares of companies incompatible with Islamic law may not be traded in the financial market. IMF (2018) discusses the role of GCC finance in global economic competition and the responsibilities of the Gulf monetary union. Irfan & Akhtar (2016), in their study, which evaluated the performance of S&P BSE 500 Sharia companies from January 2010 to December 2014, establish that Sharia-compliant stocks are constantly growing in the capital markets of India. Sheikh & Siddiqui (2016) have in their study, attempted to reveal the effect of movement, risk, and return on the Sharia Nifty 500 and Nifty 500 index in the National Stock Exchange in India and concluded that there is a long-term relationship between both indicators.

Alam et al. (2016) investigated the factors that affect the stock prices in the Bangladesh Stock Exchange and concluded that EPS, NAVPS, P/E, and CPI significantly affect the stock price. 'Dadhich et al. (2019) compared the daily closing value from April 1, 2014, to April 1, 2018, for key indices of S&P-BSE 100; S&P-BSE-200, S&PBSE-500, S&P-BSE: Large cap, S&P-BSE: Mid-cap, S&P-BSE: small-cap, and BSE-SENSEX, their study results showed that prices of different indices do not move independently. Oyedokun et al. (2019) discussed the impact of financial variables on banks' share prices in the Nigerian Stock Exchange. They concluded that the dividend payout ratio and the price-to-earnings ratio positively impact the share price of companies listed on the Bahrain Stock Exchange. According to Matharu (2019), there is a relationship between Islamic stock indices in India and S&P BSE 500 Sharia, Nifty Sharia 25, Nifty 50 Sharia, and Nifty 500 Sharia.

In a study by Natarajan & Dharani (2012), Shariah-compliant, equity-based investments are feasible and ethical. Soni & Roy (2020) concluded that there is reciprocity between Nifty 500 Sharia and S&PBSE 500 Sharia, and no relationship between IDX Sharia and Jakarta Islamic Index compared to Nifty 500 Sharia. Rehman et al. (2021) concluded that Islamic banks in the GCC countries achieved an appropriate and balanced performance during the Covid-19 crisis and did not affect their share prices. The Covid-19 crisis led to a sharp decline in shares of banks listed on the Bombay Stock Exchange (Kumar, 2021). Shrotryia & Kalra (2021) concluded that BSE's regulatory policy should help investors make informed investment decisions. Islamic banking services have become a competitive alternative to traditional banking services (et al., 2021). Also, Almonifi (2022), in his study on the green economy, suggested adopting the green finance index as one of the performance indicators in Islamic banks. As Islamic banks are engaged in actual investment activities, economic crises have had no significant negative impact on banking performance indicators (Almonifi & Bhosle, 2023).

2.2. Conceptual framework and Hypotheses development

2.2.1. Returns on Assets

According to Al-Shubiri (2010), there is a positive relationship between the market price of the share, the net asset value of the share, the market price of the percentage of dividends, and the gross domestic product, while there is a negative relationship between inflation, lending, and the interest rate. Al-Shubiri concluded that there is a relationship between the company's size and its shares' profitability. Natarajan et al. (2020) confirm in their study that there is a positive relationship between equity returns and efficient financial performance. While Sukesti et al. (2021) mentioned that the indicators of debt-to-equity ratio and return on assets have a positive effect on the share price, volume has a significant positive effect on the return on assets and thus has an impact on the share price. So, the hypothesis will be as follows.

H1: There is a statistically significant positive impact of returns on assets of companies listed on stock exchanges on their share price.

2.2.2. Returns on Equity

Sharif et al. (2015) concluded that return on equity, book value per share, dividend per share, dividend yield, price-earnings, and firm size are significant determinants of share prices. In addition, according to Balan (2017), sales, dividends per share, and return on net worth are vital determinants of stock prices and positively influence stock prices on stock exchanges. Shahzad et al. (2017) found

significant implications for portfolio managers, risk management structures, and bank regulators.

H2: There is a statistically significant positive impact of returns on equity of companies listed on stock exchanges on their share price.

2.2.3. Earnings per Share

Stock returns affect market prices, and the effect of earnings per share is higher than the effect of retained earnings, as well as the net profit per share exceeding the change in market share price. Gill et al. (2012), in their study of 333 American companies listed on the New York Stock Exchange, concluded that the book value of shares, dividends, price-to-earnings ratio, duplication with the CEO, and the company's globality explain the difference in stock prices. Malhotra & Tandon (2013) indicate that the share price affects a company's book value, earnings per share, and price-to-earnings ratio. According to Almumani (2014), there is a relationship between the DPS, EPS, BV, PE, and share price. Goyal and Gupta (2019) concluded that the earnings per share, net margin, and net income significantly impact the company's share price.

H3: There is a statistically significant positive impact of earnings per share of companies listed on stock exchanges on their share price.

2.2.4. Price/Earnings Ratio

According to Moss & Moss (2010), there is no correlation between stock prices, trade volume, liquidity, book value, and financial leverage, and they found a positive correlation between bank stock prices, dividends per share, and earnings per share. The study by Sharma (2020) concluded that earnings per share, dividend per share, and share book value also affect share market price; earnings per share and dividend per share determine the market share price. Alom and Choudhury (2022) concluded that dividend per share significantly negatively impacts the share price of the manufacturing, pharmaceutical, energy, and infrastructure sectors. However, the book value has affected share prices in all sectors except manufacturing, and the book value of shares positively impacts share prices. The study of Khan (2012) concluded that an increase in GDP, profits, and the price-earnings ratio leads to arise in stock prices and that there is a significant relationship between the B / M ratio, interest rate, and stock prices. Khan (2012) also stated that book value to market value, price-to-earnings ratio, dividend yield, and GDP positively affect stock prices, except interest rates.

H4: There is a statistically significant positive impact of the Price/Earnings ratio of companies listed on stock exchanges on their share price.

3. Research Method

3.1. Study Sample

The 10 top companies of S&P BSE 500 Shariah were selected for data. Sample consisted of Reliance Industries Ltd (Reliance), Infosys Ltd (Infosys), Tata Consultancy Services Ltd (Tata), Hindustan Unilever Limited (Hindustan), Asian Paints Limited (Asian), Hcl Technologies Ltd (HTL), Titan Company Limited (Titan), Maruti Suzuki India Ltd (Maruti), SUN Pharmaceutical Industries Ltd (SUN) and Tech Mahindra Ltd (Tech).

3.2. Statistical software used

Data were analyzed using Eviews 12, applying the Panel Least Squares Method and fixed effect model, and data were sourced from annual reports of the selected companies for 2017–2021.

3.3. Model Specification

The basic models that can be used for estimating the pool object are given below:

$$Y_{it} = a + \beta X_{it} + \epsilon_{it} \dots \dots \dots (1)$$

$$T = 1, 2, \dots \dots \dots T \quad i = 1, 2, \dots \dots \dots N$$

The study model, according to the panel data equation, can be expressed as follows:

$$SP_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 P/E_{it} + \beta_3 ROA_{it} + \beta_4 ROE_{it} + \epsilon_{it} \quad (2)$$

Where SP, EPS, P/E, ROA, and ROE indicate company share price, earnings per share, price/earnings, return on assets, and return on equity, respectively. While i represents all the companies from 1 to 10, whereas t = signifies time from January 2017 till December 2021, constituting quarterly data. To reach reliable analysis results, a total of 20 observations for each company and 200 for the complete panel have been collected; all data were sourced from the websites of companies and the BSE website.

4. Analysis and Results

4.1. Panel Descriptive Statistics

The computed descriptive statistics of each cross-section are presented in the following table.

Table 1. Descriptive statistics

| Company | EPS | | PE | | ROA | | ROE | | SP | |
|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
| | Mean | Std. Dev. | Mean | Std. Dev. | Mean | Std. Dev. | Mean | Std. Dev. | Mean | Std. Dev. |
| ASIAN | 63.00000 | 21.55866 | 28.19600 | 13.40553 | 4.506000 | 1.004717 | 8.852000 | 1.749772 | 1581.800 | 549.4684 |
| HCL | 50.45200 | 16.00713 | 24.25200 | 11.69726 | 18.60000 | 1.458666 | 25.85000 | 3.829190 | 1115.280 | 454.1490 |
| HINDUSTAN | 88.31200 | 19.73970 | 30.75600 | 7.300465 | 25.98200 | 1.205049 | 34.27200 | 3.500998 | 2672.460 | 655.4698 |
| INFOSYS | 27.57600 | 5.368061 | 71.39200 | 4.232453 | 27.08000 | 8.163273 | 67.84000 | 18.16950 | 1972.540 | 389.0137 |
| MARUTI | 24.98400 | 5.315725 | 64.94800 | 28.08778 | 15.69600 | 1.043286 | 24.69600 | 1.595119 | 2092.970 | 870.3018 |
| RELIANCE | 48.23400 | 12.04678 | 20.20000 | 6.884072 | 16.06740 | 2.577623 | 22.88800 | 2.652375 | 937.1600 | 244.6581 |
| SUN | 12.85800 | 3.670364 | 116.0140 | 60.15738 | 9.726000 | 2.345743 | 19.24800 | 3.991198 | 1413.080 | 624.6448 |
| TATA | 219.2060 | 50.50196 | 37.72800 | 8.557421 | 10.91600 | 3.075756 | 14.97000 | 4.538152 | 7927.490 | 930.4210 |
| TECH | 15.32000 | 8.051211 | 43.14800 | 16.87137 | 5.700000 | 2.987053 | 8.336000 | 4.649485 | 574.3400 | 155.3101 |
| TITAN | 44.09600 | 7.254800 | 20.91800 | 7.680906 | 11.63800 | 0.872948 | 18.58000 | 1.434830 | 950.2300 | 457.3653 |
| SUM | 59.40380 | 60.88430 | 45.75520 | 36.55468 | 14.59114 | 7.958952 | 24.55320 | 17.49734 | 2123.735 | 2108.506 |

Source: Estimates are computed by Eviews 12

Table 1 shows all ten companies' quarterly variables' mean and standard deviation. According to the selected companies, TATA has the highest monthly average share price of 7927.490 and a higher standard deviation of 930.4210, followed by HINDUSTAN's average share price of 2672.460 with a standard deviation of 655.4698. TECH has the lowest average share price and lowest standard deviation, which are 574.3400 and 155.3101, respectively. Overall descriptive statistics show that high share price companies also expose high risk or deviations.

4.2. Panel Variables Covariance

The covariance matrix test between explanatory variables allows for determining the covariance and ensuring that the study model is free from critical problems that can occur during estimating the panel data model. The multiple correlation coefficients are related to the regression of each independent variable about the rest of the explanatory variables, which are calculated by different econometric programs (Mohammed et al, 2018). Pearson variation across time was applied for estimation as follows.

$$\hat{\sigma}_{ij} = \frac{1}{T} \sum_{t=1}^T (X_{it} - \bar{x}_i)(X_{jt} - \bar{x}_j)$$

Where $\bar{x}_i = T^{-1} \sum_{t=1}^T X_{it}$ and $\bar{x}_j = T^{-1} \sum_{t=1}^T X_{jt}$.

For variation across-section as:

$$\hat{\sigma}_{st} = \frac{1}{N} \sum_{i=1}^N (X_{it} - \bar{x}_i)(X_{js} - \bar{x}_s)$$

Where $\bar{x}_i = N^{-1} \sum_{t=1}^N X_{it}$ and $\bar{x}_s = N^{-1} \sum_{t=1}^N X_{is}$.

Table 2. Variables Covariance

| Covariance | SP | EPS | PE | ROA | ROE |
|------------|-----------|-----------|-----------|-----------|-----------|
| SP | 3632.760 | -638.1004 | 6.988177 | -143.8857 | 105956.2 |
| EPS | -638.1004 | 1329.563 | -21.99410 | 84.52865 | 4899.750 |
| PE | 6.988177 | -21.99410 | 63.02818 | 122.3715 | -168.5938 |
| ROA | -143.8857 | 84.52865 | 122.3715 | 304.6262 | -1828.633 |
| ROE | 105956.2 | 4899.750 | -168.5938 | -1828.633 | 4423569. |

Source: Estimates are computed by Eviews 12

Results of the covariance test between variables cross-sections show a negative covariance between SP and EPS, ROA, also negative covariance between EPS and PE, PE has negative covariance with ROE, and likewise, ROA has negative covariance with ROE, which means that there is cross-section correlation between variables.

4.3. Panel Unit Root Tests

To test the stationarities of cross-sectional time series and detecting unit root, have been adopted. The suggested hypotheses by Levin-Lin-Chu Test (LLC) as the following:

H₀: Each Time Series Contains a Unit Root

H₁: Each Time Series is Stationary

Next, we run panel OLS regression according to the final equation as given below:

$$\tilde{e}_{it} = \rho v_{i,t-1} + \tilde{\varepsilon}_{it}$$

For Im' Pesaran, and Shin, the hypotheses:

H₀: $\rho_i = 0 \forall i$

H₁: $\left\{ \begin{array}{l} \rho_i < 0 \text{ for } i = 1, 2, \dots, N_1 \\ \rho_i = 0 \text{ for } i = N_1 + 1, \dots, N \end{array} \right.$

Then the panel individual unit root test $t^- = \frac{1}{N} \sum_{i=1}^N t_{pi}$

Table 3 shows that all-time series have a unit root at level; therefore, we failed to reject the null hypothesis, whereas all variables became stationary at the first difference; therefore, we rejected the strong null hypothesis.

Table 3. Results of Panel Unit Root Tests

| Variables | Levin, Lin & Chu (2002) | | Im' Pesaran & Shin (2003) | |
|-----------|-------------------------|----------------------|---------------------------|----------------------|
| | Level 1(0) | 1st Deference 1(1) | Level 1(0) | 1st Deference 1(1) |
| SP | 1.6211 (0.9475) | -4.44374 (0.0000) | 3.7244 (0.9999) | -5.73104 (0.0000) |
| EPS | -1.26564 (0.1028) | -5.39729 (0.0000) | 0.11533 (0.5459) | -5.30570 (0.0000) |

| | | | | |
|-----|----------------------|----------------------|---------------------|----------------------|
| PE | 1.48749 (0.9316) | -5.37730 (0.0000) | 2.44390 (0.9927) | -5.24141 (0.0000) |
| ROA | -0.05495 (0.4781) | -4.81614 (0.0000) | 0.54335 (0.7066) | -4.61059 (0.0000) |
| ROE | -0.24988 (0.4013) | -7.09372 (0.0000) | 0.96388 (0.8324) | -5.07941 (0.0000) |

Source: Estimates are computed by Eviews 12

4.4. Panel Cointegration Tests

After a test of stationery of all variables at the level and first difference, the cointegration test, which is based on unit root tests for estimated residuals, must be run (Guellil et al., 2017) The hypotheses are as follows:

H_0 : No Panel Cointegration among the Variables

H_1 : Presence of Panel Cointegration among the Variables

Pedroni developed two statistical sets based on a null hypothesis test for the absence of simultaneous cointegration relationships $H_0: P1=1$, where P1 refers to the correlation of estimated residuals under a successive hypothesis:

Table 4. Pedroni Test (1999, 2004)

| Com. AR coef. (within-dimension) | Statistic | Prob. | Weighted Statistic | Prob. |
|-------------------------------------|-----------|-----------|--------------------|--------|
| Panel v-Statistic | 350033.4 | 553333 | 350034.. - | 553333 |
| Panel rho-Statistic | 653464.3 | 352205 | 650.505. | 35225. |
| Panel PP-Statistic | 655.5.62 | 352.3. | 55535500 | 352.46 |
| Panel ADF-Statistic | 1.441402 | 0.9253 | 0.783387 | 0.7833 |
| Indiv. AR coef. (between-dimension) | | Statistic | | Prob. |
| Group rho-Statistic | | 355.3652 | | 553333 |
| Group PP-Statistic | | 053.6442 | | 352225 |
| Group ADF-Statistic | | 2.416628 | | 0.9922 |

Source: Estimates are computed by Eviews 12

Table 4 results show the absence of simultaneous cointegration between the variables at the same level; therefore, we failed to reject the null hypothesis and must apply the Kao residual cointegration test as follows:

Table 5. Kao Test (1999)

| ADF | t-Statistic | Prob |
|-------------------|-------------|--------|
| Residual variance | -4.425592 | 0.0000 |
| HAC variance | 55.5.555 | - |
| | 1.575771 | |

Source: Estimates are computed by Eviews 12

Kao testing (1999) indicates simultaneous cointegration at the same level between the variables; therefore, we reject the null hypothesis and can run to estimate the regression.

4.5. Panel Data Regression Model Test

For the estimation of an appropriate model for the analysis of the relationship between financial performance indicators and share prices, Lagrange Multiplier tests (Breusch-Pagan test) will be conducted to select the fit model among the fixed effect model, random effect model, or common model according to following hypotheses:

H_0 : Pooled Regression Is Better

H_1 : FEM/REMAre Better

Table 6. Breusch-Pagan Test

| Effects Test | Cross-section | Time | Both |
|---------------|----------------------|----------------------|----------------------|
| Breusch-Pagan | 52.16362 (0.0000) | 21.15558 (0.0000) | 73.31920 (0.0000) |

Source: Estimates are computed by Eviews 12

According to a p-value of the Breusch-Pagan test for panel section and time which is less than 0.05, we reject the null hypothesis, and the FEM or REM is considered in our study. Hausman test was conducted to choose between the fixed effect model and the random effect model under the following hypotheses:

H₀: Random Effect Model is appropriate

H₁: Fixed Effect Model is appropriate

Table 7. Correlated Random Effects - Hausman Test

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|----------------------|-------------------|--------------|--------|
| Cross-section random | 145.656367 | 4 | 0.0000 |

Source: Estimates are computed by Eviews 12

As the p-value is less than 0.05, we accept the alternative hypothesis, which makes the Fixed Effect Model more appropriate for our study.

4.6. Estimating Fixed Effects Model

According to the results of the Hausman test, the model's parameters will be estimated using a fixed effects model using the ordinary least squares method.

Table 8. Fixed Effects Model

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 2235.065 | 235.4574 | 9.492440 | 0.0000 |
| EPS | -4.138340 | 2.336439 | -1.771217 | 0.0782 |
| PE | 10.59033 | 1.719959 | 6.157318 | 0.0000 |
| ROA | -61.07881 | 40.44390 | -1.510211 | 0.1327 |
| ROE | 22.03987 | 18.54983 | 1.188144 | 0.2363 |

Source: Estimates are computed by Eviews 12

Results in Table 8 show that parameter (α %) is significant at 0.05 and negatively affects the share price. The variable PE has a positive significance at 0.05, which indicates a direct relationship with SP, and the higher PE leads to a higher share price, while the variables of EPS, ROA, and ROE are not significant, and ROA and EPS have negative values. According to equation values included in Table 8, the equation of regression analysis of independent variables to dependent variable is bellowed:

$$SP = C(1) + C(2)*EPS + C(3)*PE + C(4)*ROA + C(5)*ROE + [CX=F]$$

$$SP = 2235.0652591 - 4.13833959553*EPS + 10.5903337276*PE - 61.0788085598*ROA + 22.0398745387*ROE + e_{1,5}$$

Table 9. Coefficient of Determination

| | Cross-section fixed (dummy variables) | | |
|--------------------|---------------------------------------|-------------------------------|----------|
| R-squared | 0.948744 | Mean dependent var | 2123.735 |
| Adjusted R-squared | 0.945161 | S.D. dependent var | 2108.506 |
| F-statistic | 264.8321 | Durbin-Watson stat | 0.313216 |
| Prob(F-statistic) | 0.000000 | Panel (Balanced) Observations | 200 |

Source: Estimates are computed by Eviews 12

The results of Table 9 show that the relationship between a dependent variable and independent variables is powerful, where the coefficient of R-squared is 0.948744, close to 1, also The F- statistical 264.8321 refers to that the fixed effects model is significant.

4.7. Hypotheses Testing

The result of hypothesis H1 ($\beta = -61.07881$, $p = 0.1327$) showed a negative and non-significant effect of returns on assets on the index of companies' share prices in the stock exchanges. So, the change in return on assets does not affect the share prices. Also, for Returns on Equity (H2), there is a non-significant positive relationship between the return on equity index and the companies' share price index ($\beta = 22.03987$, $p = 0.2363$). Also, there is a non-significant negative effect between the Earnings per Share index and the companies' stock price index (H3) ($\beta = -4.138340$, $p = 0.0782$), and it appears that the result approaches the research hypothesis according to the probability value but with a negative effect. While the result of hypothesis H4 ($\beta = -10.59033$, $p = 0.0000$) demonstrated a significant positive effect of the Price/Earnings Ratio on the companies' share price index in the stock exchanges. Therefore, the change in the Price/Earnings Ratio has a positive relationship with the change in stock prices.

Table 10. Hypotheses Testing

| Hypotheses | Variables | Coefficient | P-value | Decision |
|--|----------------------|-------------|---------|----------|
| H1: There is a statistically significant positive impact of returns on assets of companies listed on stock exchanges on their share price. | Returns on Assets | -61.07881 | 0.1327 | Rejected |
| H2: There is a statistically significant positive impact of returns on equity of companies listed on stock exchanges on their share price. | Returns on Equity | 22.03987 | 0.2363 | Rejected |
| H3: There is a statistically significant positive impact of earnings per share of companies listed on stock exchanges on their share price. | Earnings per Share | -4.138340 | 0.0782 | Rejected |
| H4: There is a statistically significant positive impact of the Price/Earnings ratio of companies listed on stock exchanges on their share price. | Price/Earnings Ratio | 10.59033 | 0.0000 | Accepted |

5. Conclusions

The study hypothesized that the return on assets and return on equity could impact the share prices of companies listed on the stock exchange. However, the results of the study proved the opposite. The current study confirmed that the proposed relationship between the Price/Earnings Ratio and the share price is correct, while the indicators of return on assets, return on equity, and Earnings per Share are not predictive of the share price. The study concluded that Returns on Assets and Earnings per Share have negative and insignificant effects on the companies' share price in the stock exchanges, and return on equity has a non-significant positive effect on the companies' share price. A positive and significant relationship between the Price/Earnings Ratio and the companies' share price index is observed.

The implications for business in this research can be seen in whether or not variables influence each other, as in this research, the ability of the Price/Earning Ratio can be more influential than other variables. The results of this research bring new contributions to the world of shares, especially Sharia shares, where in this modern era, many people are switching to investing in shares. Apart from that, this research adds new knowledge for readers.

6. Acknowledgment

Researchers would like to thank all who helped complete this paper.

7. References

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