Jahangirnagar University Journal of Business Research (JUJBR), Vol. 25, No. 02, December, 2025
ISSN 1681-9748

# Firm Fundamentals, Market Conditions, and P/E Ratios: Cross-Industry Insights from Bangladesh

JUJBR

**Nusrat Rahman***

***Abstract:*** *This research explores the key contributing factor of the price earnings ratio (P/E) in Bangladesh's capital market, focusing on firm-specific, non-financial, and macroeconomic variables. A model of 81 non-financial companies from 13 industries, representing 69% of the non-financial equity market and 53% of the total market capitalization, is evaluated using descriptive statistics, correlation analysis, and panel data techniques. After undertaking model specification issues, the System GMM model discloses that P/E ratios are positively influenced by current ratio, asse size, Dividend Payout Ratio, inflation, stock market index return, and industry average P/E, while negatively impacted by debt to equity, NPM, GDP growth rate, and free float percentage. Heatmap analysis affirms valuation variances across industries and years and thus using Panel Corrected Standard Errors (PCSE) model reveals sector specific variations- Return of Equity (ROE), Dividend Payout Ratio* **(***DPR), inflation, market index returns, free float, and industry averages influence P/E differently across industries. This emphasizes investors' concentration on firm's financial health followed by macroeconomic and non-financial factors. Although the sample scope was restricted by excluding financial institutions and time periods, this is the only study in recent times that delivers a thorough multi-sector evaluation perspective for Bangladesh which will be beneficial for academicians, investors, analyst and regulators.*

***Keywords:*** *Price earnings ratio (P/E), Panel data analysis, Firm financial factors, Non-financial indicators, Macroeconomic factors, Bangladesh capital market*

***JEL Codes:*** *G30, G11*

## 1. Introduction

The stock market is a crucial economic pointer for nations, acting as an agent between savers and investors. It combines capital, spreads risk, and enables wealth transfer, while also safeguarding the efficient allocation of resources to foster economic growth (Sindhu et al., 2014). However, forecasting stock prices remains difficult for investors and fund managers, especially in dynamic markets where consistent returns are tough to achieve. This problem is especially evident in emerging economies, where stock markets often deviate from the efficient market hypothesis (EMH) (Rahman, 2019). Fama's 1970 EMH theory implies

* Assistant Professor, Department of Finance & Banking, Jahangirnagar University, Email: nusratfnb@juniv.edu

DOI: 10.53461/jujbr.v25i02.99

that both fundamental and non-fundamental elements affect stock prices. Accordingly, notable research has aimed at identifying the factors affecting stock prices in various markets (Houmes and Chira, 2015). Earlier in 2015, Adebisi and Lawal led a survey of literature that concluded that dividend per share, earning per share, book value per share, dividend payout, price earnings ratio, and size of the firm are main contributing factors of equity share price.

Stock price changes are induced by both intrinsic and extrinsic factors (Sindhu et al., 2014). Quantifiable factors such as dividends, P/E ratio, market capitalization, earnings per share (EPS), return on investment (ROI), and retained earnings, along with qualitative factors including market sentiment, company announcements, government policies, and political events, altogether play a crucial role in stock price determination. Key internal and external factors affecting stock prices include the P/E ratio, stock rumors, demand, economic conditions, and shifts in government policies. Kurihara and Yutaka (2004) also detected that macroeconomic variables such as GDP, interest rates, and employment levels influence daily stock prices. The figure 1 illustrates how average P/E ratios fluctuate widely between 2016 and 2022 across industries in Bangladesh. Thus, the debate on the factors affecting stock prices remains central to financial research.

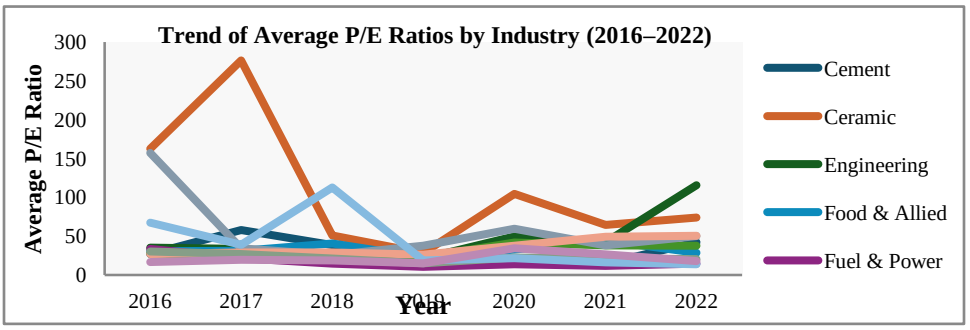


**Figure 1: Average P/E ratios trend of different industries in Bangladesh**

The ceramic and miscellaneous sectors showed severe instability in 2017 where other industries like Cement and Food & Allied were somewhat stable with moderate fluctuations. Engineering, Pharmaceuticals & Chemicals exhibited steady rising trends implying investor confidence and earnings resilience. In contrast, Fuel & Power sector showed a steady decline, displaying weaker growth expectations or earnings pressure. Overall, the figure hints that pattern needs to be tested with its underlying determinants of P/E across industries. Prior studies on P/E ratio determinants in Bangladesh mainly directed on industry specific or time period specific samples without thorough analysis across the entire market with cross-industry data. This study mitigates this gap by analyzing both firm specific and non-financial factors, and macroeconomic factors for non-financial firms with comparisons at the sector level. The conclusions accelerate our combined understanding of how valuation determinants vary at the firm

DOI: 10.53461/jujbr.v25i02.99

level, macroeconomic level, and industry-level magnitude, and in the context of an emerging market. These identifications can help shape targeted strategies for investors, aid corporate managers to develop financial policies respecting the interests of investors, and support regulators to promote viable, efficient, and sustainable development and growth of the Bangladeshi capital market.

## 2. Review of Literature

### *2.1 Theoretical review:*

The theory of using the price earnings ratio for investment analysis dates to Graham and Dodd's initial work in 1934, where they proposed it as a reflection of both past earnings and potential growth prospects. Nicholson (1960) later provided empirical support, exposing that firms with lower P/E ratios often beat those with higher ratios in terms of returns, a pattern commonly identified as the value premium. Scholars often use the Gordon constant dividend model to explore factors influencing the P/E ratio. According to this, investor returns come from dividends and expected capital gains.

### *2.2 Empirical review:*

Firm fundamental information plays a vital role in explaining a stock price movement over time (Shao et al.,2021). Nearly 20% of the annual return can be explained by earnings announcement returns, according to their study on the effect of firm fundamental knowledge in elucidating stock returns. In a different study, Naknok (2022) used 513 observations from 2016 to 2020 to analyze 100 listed companies in Thailand. While countless valuation formulas exist, the P/E ratio remains the most used metric for estimating a stock's price relative to its earnings. It also makes it easier to predict growth, as lower P/E values often signal expectations of rising future earnings, whereas higher P/E ratios may indicate slower growth (Freihat, 2019).

In both developed and developing countries, the P/E ratio has been widely examined using various proxies. Empirical evidence from developed countries, such as the US market signifies that the P/E ratio signals investor views of a company's earnings quality. Siegel and Shim (1981) found that firms with higher-quality earnings tend to have higher P/E ratios. Regression analysis of earnings quality factors and P/E ratios support this link. Antalovschi and Cox (2021) studied 578 Canadian firms listed on the Toronto Stock Exchange between 2011 and 2018 to uncover the financial factors influencing P/E ratios in Canada. Among the 27 financial indicators employed as independent variables in the study, net profit margin (NPM), return on investment (ROI), total asset turnover (TAT), natural logarithm of total assets (ln (TA)), and dividend per share (DPS) all had statistically significant effect on P/E.

In emerging markets, different firm-level characteristics, other than earnings, have a prominent impact on the price-to-earning (P/E) ratio. In China, profitability, growth opportunities, firm size, and years listed on the market have a negative influence on P/E ratios, while circulation scale and turnover rate

DOI: 10.53461/jujbr.v25i02.99

influence P/E ratios positively (Kecheng, 2022). Similarly, firm size and dividend payout positively influence P/E of Jordanian industrial firms meanwhile earnings growth, interest rate and leverage do not significantly impact P/E (Freihat, 2019). These outcomes imply firm scale, and dividends count to investor's perception of investing. In contrast, Almumani (2014) recognized P/E ratios' positive correlation with EPS, and BVPS, while negative relation to Dividend Payout (DP) and Dividends per Share (DPS), though he didn't compare or act on these relationships. Almajali et al. (2012) revealed Jordanian insurance firm performance improved with increased size, liquidity, leverage, and management efficiency. Furthermore, In Bangladesh, plethora of studies highlight important P/E ratio determinants: dividend payout, yield, leverage, liquidity, and firm size, as well as ROE and NPM (Jahan et al., 2023). Net Asset Value (NAV) and leverage exert positive influence on P/E, while dividend yield and size have a negative impact on P/E (Dutta et al., 2018). The research also signals that an investor's behavior reacts to dividends, earnings, and company-specific information (Sultana et al., 2017).

Some additional factors have been explored in both the US and UK markets such as stock liquidity, asset pricing, and free float, which suggest that the free-float-adjusted price impact ratio is superior to other measures, even during the 2007-2009 financial crisis (Le and Gregoriou, 2022). Firms with larger free float percentages in the UK are considered more liquid (El-Nader,2018). Basu's (1977) research further reinforces the notion that low P/E portfolios offer better risk-adjusted returns. In the Indonesian capital market, Alifi and Kurniawati (2024) found that earnings management negatively affects returns, while dividend policy and free float had no significant impact.

Based on these previous studies, the fundamentals of a firm are a significant predictor of its share price and valuation. Fundamentals like EPS, ROA, ROE, and book value per share (BVPS) - all have positive relationships with market value, while firm size, leverage, and dividend payout have more convoluted or negative associations altogether (Dutta et al., 2018; Freihat, 2019; Jahan et al., 2023). Non-firm related factors, such as liquidity and sentiment, are also relevant to valuation (Le & Gregoriou, 2022; Sultana et al., 2017). Therefore, the study posits the following hypotheses:

> *$H_1$: There exists significant relationship between the price-to-earnings (P/E) ratio and the financial performance indicators ($H_{1(a)}$: Current Ratio, $H_{1(b)}$: Debt to Equity Ratio, $H_{1(c)}$: Asset Size, $H_{1(d)}$: Return on Equity, $H_{1(e)}$: Net Profit Margin, $H_{1(f)}$: Dividend Payout Ratio) of listed companies in an emerging economy.*

Earlier, Ramcharran (2002) discussed the importance of identifying the determinants of the P/E ratio in emerging equity markets and empirically concluded that economic growth and credit risk were the most important determinants of the P/E ratio in 21 emerging markets from 1992 to 1999. In Pakistan, Khan and Amanullah (2012) found that GDP growth, dividends, and P/E ratios lead to higher share prices for 34 companies listed on the Karachi

DOI: 10.53461/jujbr.v25i02.99

Stock Exchange. In comparison, Du and Li (2015) in China found a substantial association between GDP, inflation rate, and interest rate and the PE ratio in their study on the factors affecting the Baogang Group's PE ratio. In contrast, Wenjing (2008) identified industry average P/E ratio and ROE as key determinants, though macroeconomic factors had limited influence. In view of these studies, this study proposes:

> *$H_2$: The magnitude of influence of macroeconomic indicators ($H_{2(a)}$: GDP growth rate, $H_{2(b)}$: Weighted average lending rate, $H_{2(c)}$: Inflation rate, $H_{2(d)}$: Stock market index return) firm-level financial performance indicators and non-financial indicators ($H_{2(e)}$: Free Float percentage, $H_{2(f)}$: Industry average P/E ratio) on the P/E ratio differs significantly.*

Apart from the above discussions on existing literature, it can be easily assumed that determinants of P/E are supposed to vary across different industries and countries. For instance, Zhang (2022) highlighted that in China's media sector, the P/E ratio is strongly impacted by dividend yield, P/B ratio, ROE, and D/E ratio. Afza and Tahir (2012) identified Tobin's Q and the dividend payout ratio as the key drivers of P/E ratios in the chemical sector. Sajeetha et al. (2023) observed that dividend payout and leverage ratios positively affect P/E ratios in food, beverage, and tobacco companies in Colombo. However, returns on equity and earnings per share negatively impact P/E ratios. In Bangladesh, studies by Lalon et al. (2021), Ramij and Das (2021), and others investigated factors influencing stock prices. Ramij and Das (2021) found that ROA, BVPS, EPS, and P/E ratios positively affect insurance company stock prices. Lalon et al. (2021) showed that factors like the lagged P/E ratio and leverage significantly influence banking sector P/E ratios, while Akter and Chaity (2013) highlighted the impact of macroeconomic variables such as money supply and interest rates on share price volatility. For this reason, the study's third hypothesis attempts to examine-

> *$H_3$: The determinants of the P/E ratio significantly vary across different industries in Bangladesh.*

Determinants of stock prices differ from developed to developing markets. For instance, in developed economies - USA, Japan, Canada and UK - prices are determined by earning quality, return on investment and dividend consistency; with relatively low influence from macroeconomic factors (Antalovschi and Cox, 2021, Jitmaneeroj, 2017). In contrast, in emerging economies - Bangladesh, India, China, Jordan and Indonesia - valuations are more sensitive to macroeconomic drivers which include interest rate, inflation, GDP growth and money supply as well firm-specific drivers such as EPS and leverage (Du and Li, 2015, Khan and Amanullah, 2012, Lalon et al., 2021). In all cases, profitability is a universal determinant of prices; with differences in market efficiency and exposure to macroeconomic factors being the common distinction between developed and undeveloped financial systems. Research shows that current knowledge about P/E ratio determinants and their industry-specific behavior in Bangladesh's emerging market economy remains incomplete. This research aims

DOI: 10.53461/jujbr.v25i02.99

to identify the main factors which determine stock price-to-earnings (P/E) multiples of companies in different Bangladeshi sectors. The study analyzes the effect of financial indicators at the company level against economic variables at the macro level and then examine how these factors influence different industries through sector-specific analysis.

Thus, it is evident that the previous studies have explored the determinants of the Price-to-Earnings (P/E) ratio in specific industries and time periods within the Bangladeshi market (Table 1). However, a comprehensive and recent analysis covering the entire capital market remains largely unexplored.

**Table 01: List of study explored the P/E ratio determinants in Bangladesh**

| No. | Author(s) | Study period | Companies/Industry | Variables category |
|---|---|---|---|---|
| 1 | Jahan et al., (2023) | 2011-2021 | Banking | Financial performance indicators |
| 2 | Ramij and Das, 2021 | 2010-2019 | Insurance | |
| 3 | Lalon et al. (2021) | 2010-2019 | Banking | |
| 4 | Dutta et al., (2018) | 2011-2015 | Manufacturing | |
| 5 | Ali (2017) | 2010-2011 | Random 100 DSE listed companies | |
| 6. | Khan (2007) | 2000-2006 | Mixed industry | |
| 7 | Alam et al., (2016) | 2006-2015 | Cement | Financial performance indicators and Macroeconomic factors |
| 8. | Akter and Chaity (2013) | 2008 -2012 | Banking | |

This study thus minimizes that gap by examining the effects of firm-specific financial performance indicators, non-financial variables, and macroeconomic factors on the P/E ratio of non-financial firms from 13 industries, while also comparing the magnitude of determinants across industries.

## 3. Research Methodology

### *3.1 Sources of data and selection of variables:*

This research draws on panel data from 81 non-financial firms listed on the Dhaka Stock Exchange (DSE), across 13 industries, for the period 2016–2022 *(Table 2).* Companies with negative EPS are not considered while selecting sample because negative P/E ratios have no usefulness for interpretation and comparability. P/E indicates a market price per unit of profit, and with losses, indicators become meaningless. Negative EPS distorts valuation signals and misleads investment decisions while also making comparisons across other firms impossible for validity in empirical research. Banks are also excluded due to the high leverage used, regulatory restrictions, and earnings that are both volatile and driven by provisions, deterioration of asset quality, and reliance on book value; as such, P/E ratios are often not meaningful when valuing banks or making relative comparisons.

DOI: 10.53461/jujbr.v25i02.99

**Table 02: Representation of selected sample of the study**

| No. | Industry | Number of companies | % of sample | Market capitalization of sample (BDT million) | Sector market cap. (BDT million) | % of Sector Market Cap |
|---|---|---|---|---|---|---|
| 1. | Cement | 2 | 2.47% | 82,220 | 111,065.29 | 74% |
| 2. | Ceramic | 3 | 3.70% | 25,360 | 32,594.73 | 78% |
| 3. | Engineering | 14 | 17.28% | 124,611 | 525,291.89 | 24% |
| 4. | Food & Allied | 4 | 4.94% | 309,765 | 378,604.51 | 82% |
| 5. | Fuel & Power | 12 | 14.81% | 382,733 | 446,244.56 | 86% |
| 6. | IT | 5 | 6.17% | 13,875 | 39,352.06 | 35% |
| 7. | Miscellaneous | 7 | 8.64% | 207,597 | 219,432.45 | 95% |
| 8. | Pharma & Chemical | 17 | 20.99% | 649,868 | 728,300.44 | 89% |
| 9. | Services & Real Estate | 3 | 3.70% | 25,737 | 27,122.65 | 95% |
| 10. | Tannery Industries | 1 | 1.23% | 12,304 | 32,671.16 | 38% |
| 11. | Telecommunication | 2 | 2.47% | 423,094 | 580,231.79 | 73% |
| 12. | Textile | 10 | 12.35% | 55,561 | 170,681.56 | 33% |
| 13. | Travel & Leisure | 1 | 1.23% | 3,251 | 43,290.88 | 8% |
| | **Total** | **81** | **100%** | **2,315,976** | | |

*Source: Author's own computation*

Data sources include annual reports, www.dsebd.org, and investing.com. As of December 2022, the selected sample accounts for BDT 2,315,976 million in market capitalization, representing 69% of the non-financial equity market and 53% of the total equity market (BDT 4,396,721 million). To derive the variables required for this study, raw data were processed and transformed into the final indicators used in the analysis.

### *3.2 Description of the variables:*

#### *3.2.1 Dependent Variable:*

**P/E ratio:** The price-earnings ratio, or P/E ratio, represents the current share price in relation to earnings per share. (Lalon et al.,2021; Ramij and Das,2021; Antalovschi and Cox, 2021; Dutta et al., 2018). The P/E ratio can be expressed based on these components.

$$(\mathrm{P/E}) = \frac{\boldsymbol{Stock\ Price\ Per\ Share\ (Po)}}{\boldsymbol{Earnings\ Per\ Share(EPS\ 1)}} \quad \textbf{----------(1)}$$

In this case, a dividend discount model may represent Po = $D_1$/ (r-g) and where g is the predicted growth rate of the estimated dividends, r is the amount of return that investors want, or their discount rate, and $D_1$ is the anticipated dividend payout for the following year. So, equation (1) can be restructured as follows:

$$(\mathrm{P/E}) = \frac{\boldsymbol{D1}}{\boldsymbol{EPS\ 1}} \mathbf{x}\ \frac{\mathbf{1}}{\boldsymbol{r-g}} \textbf{----------(2)}$$

The P/E ratio is shaped by three primary factors: expected dividend growth, firm risk reflected in the required return, and a sustainable payout ratio (Freihat, 2019). While the first two support a higher P/E, an increase in the required return lowers it.

DOI: 10.53461/jujbr.v25i02.99

$$P/E = \frac{Market\ Price\ Per\ Share}{Earnings\ Per\ Share}$$

*3.2.2 Independent Variables:*

**Current Ratio (CR):** The current ratio is defined as the liabilities due within one year compared to assets that are either cash or convertible to cash within the same period. (Antalovschi and Cox, 2021; Du and Li, 2015)

$$CR = \frac{Current\ Assets}{Current\ Liabilities}$$

**Debt to Equity Ratio (LR):** The debt-to-equity ratio, or D/E ratio, shows how much debt a corporation has in relation to its assets. A higher D/E ratio indicates that it may be more difficult for the company to repay its debts. (Antalovschi and Cox, 2021).

$$LR = \frac{Total\ Liabilities}{Shareholders'equity}$$

**Asset Size (Size):** Firm size is determined using the natural logarithm of total assets (Dutta et al. 2018; Antalovschi and Cox, 2021).

$$Size = Ln\ (Total\ Assets)$$

**Return on Equity (ROE**): Return on Equity (ROE) is the proportion of net income generated relative to shareholders' equity, typically expressed as a percentage. (Antalovschi and Cox, 2021).

$$ROE = \frac{Net\ income}{Total\ shareholder's\ equity}$$

**Net Profit Margin (NPM):** Net profit margin, expressed as a percentage of revenues, indicates the amount of net income generated. (Antalovschi and Cox, 2021).

$$NPM = \frac{Net\ income}{Total\ Revenue}$$

**Dividend Payout Ratio (DPR):** The percentage of net income that is given to shareholders as dividends over the course of the year is shown by the dividend payout ratio (Dutta et al. 2018; Antalovschi and Cox, 2021).

$$DPR = \frac{Dividend\ Per\ Share}{Earnings\ Per\ Share}$$

*3.2.3 Control Variables:*

*3.2.3.1 Macroeconomic Indices:*

**GDP growth rate (GDP GR):** GDP growth, a crucial metric of economic progress, helps firms forecast industry trends and strategize for expansion. Therefore, evaluating the relationship between GDP growth rate and P/E ratio is must to understand valuation sensitivity to macroeconomic conditions. (Rahman et al., 2023; Du and Li, 2015; Wenjing, 2008)

DOI: 10.53461/jujbr.v25i02.99

**Weighted average lending rate (WALR):** Low lending rates promote borrowing, raising company's leverage ratios and EPS; however, when rates go up, highly leveraged firms face decline in earnings and increase in stock price volatility. (Rahman et al., 2023; Akter and Chaity, 2013).

**Inflation rate (IR):** The PE ratio increases with rising inflation rates and decreases with falling inflation rates. (Du and Li, 2015; Wenjing, 2008)

**Stock market index return (SMIR):** If profit remains constant and share capital fluctuates minimally, P/E ratios will almost certainly follow the direction of the stock market index. (Wenjing, 2008)

*3.2.3.2 Non-Financial Indices:*

**Free float percentage (FF):** It indicates the portion of shares available for public trading. Institutions investors normally prefer stocks with higher free float, as low free-float stocks are typically more volatile and less liquid (Alifi and Kurniawati, 2024).

*Free float percentage (FF)= [1-Sponsor director's shareholding percentage including governments holding (if any)]*

**Industry average P/E ratios (IAPE):** Since market conditions and sector characteristics have a significant impact on interpretation and comparability, evaluating a company's P/E ratio within its industry provides suitable valuation (Wenjing, 2008; Mehta, 2025)

*3.3* ***Statistical Analysis Method:***

The following multiple regression model for panel data analysis is developed:

$$\boldsymbol{P/E_{it} = \alpha + \sum_{k=1}^{6} \beta_{it} X_{itk} + \sum_{k=1}^{4} \gamma_{it} M_{itk} + \sum_{k=1}^{2} \delta_{it} N_{itk} + \varepsilon}$$

Where, $\sum X_{itk}$ represents independent variables $\beta_{it}$, represents coefficients of independent variables.

$\sum M$, represents selected macroeconomic indicators, $\gamma_{it,}$ represents the coefficients of macroeconomic indicators.

$\sum N$, represents all non-financial indicators, $\delta_{it,}$ represents the coefficients of non-financial indicators.

α is constant.

i represents the individual firms (e.g., firm 1, firm 2, ..., firm *n*)

t represents the time as a specific year (e.g., year 1, year 2, ..., year *t*)

k represents the number of total variables under each variable's category.

$\varepsilon_{it}$ is the error term, which accounts for other possible factors that could influence but not included in the model.

Since the dataset is structured as panel data, appropriate panel regression techniques (similar to Jahan et al., 2023; Ramij and Das, 2021) after descriptive statistics, correlation analysis is applied to evaluate the research hypotheses. Diagnostic checks for heteroskedasticity, cross-sectional dependence, and

DOI: 10.53461/jujbr.v25i02.99

autocorrelation, and endogeneity test are conducted. Based on the results of diagnostic tests, robust tool as applied by Lalon et al., 2021; Generalized Method of Moments (GMM) Model and Panel Corrected Standard Error (PCSE) estimation is used. Data processing and analysis were carried out using Microsoft Excel, SPSS (v27), and Stata (v14).

## 4. Empirical Results Analysis

The findings of each statistical technique are analyzed in the subsection below.

### *4.1 Descriptive statistics:*

The descriptive statistics *(Appendix Table 1)* reveal that the average P/E ratio among the sampled firms is 37.33, a notably higher than the industry average of 20.69. Leverage ranges widely from 0 to 13.33. Average ROE of 14.39% and NPM of 13.26% is shown in the sample. High volatility shown by Dividend payout ratio with a mean of 61.30%. Average GDP growth is 6.65%, while the average lending and inflation rates are 8.83% and 5.96%, respectively. Free float percentages vary noticeably, ranging from 5% to 94.67%.

### *4.2 Analysis of Correlation among the variables:*

P/E ratio shows significant negative correlation with leverage (LR), firm size, ROE, and NPM, while displaying a positive link with DPR and industry average P/E (IAPE) *(Appendix Table 2).* Macroeconomic variables display no significant correlation with P/E. Free float percentage does not have direct significant link with the P/E, it is inversely associated with most independent variables, except the current ratio. Among the controls, only IAPE has an important influence on P/E. Some moderate links were reflected among the independent and control variables, but none were strong. The mean VIF value of 1.47 *(Appendix Table 3)* indicates no multicollinearity.

Panel data analysis is performed next to investigate underlying effects among the variables.

### *4.3 Panel Data Analysis:*

Fixed Effect and Random Effect regressions are applied to examine the panel dataset. Firms usually differ in attributes like asset size, capital, shareholder numbers, and revenue. Random Effect Model effectively portrays these cross-sectional variations. Meanwhile, the Fixed Effect Model helps control firm-specific traits that remain constant over time, thus minimizing bias. The Hausman test is applied to determine the more suitable model for this study. Similar analytical methods have been used in prior studies by Jahan et al. (2023), Ramij and Das (2021). Summary result of Random effect, Fixed Effect model and Hausman Specification effect are presented in *Appendix Table 3.*

The result of ***random effect regression*** model discloses that ROE and NPM show significant negative relationship with PE (-45.123 and-43.785 respectively); suggesting that lower market valuation multiples may be impacted from higher profitability of the firms. In contrast, both DPR and IR have significant positive

DOI: 10.53461/jujbr.v25i02.99

influence on PE (27.84 and 1027.19 respectively). Other variables such as CR, LR, GDP GR, WALR have no significant effect on the PE ratio.

The result of ***fixed effects regression model*** reveals that DPR (23.25) and IR (1092.393) have significant positive influences whereas NPM (-289.08) has significant negative impact on PE ratio. These findings demonstrate investor preference for dividend disbursing firms and valuation adjustments during the inflationary periods. However, other macroeconomic and firm specific factors don't prove any statistically significant influence on PE.

*4.3.1 Hausman Specification Effect:*

To determine whether the unique errors ($\varepsilon_i$ ) are correlated with the regressors. *Null hypothesis ($H_0$ ):* Random effects model is appropriate (no correlation between $\varepsilon_i$ and regressors). *Alternative hypothesis ($H_1$ ):* Fixed effects model is appropriate (correlation exists). With a chi-square value of 28.22 and Prob> chi2 = 0.0051, results favor the Fixed Effect model for this analysis. Diagnostic tests are performed next before coming to conclusion.

Diagnostic tests results summary is presented in *Appendix Table 3*. From the Wald test for group-wise heteroskedasticity, it confirms the presence of panel group-wise heteroskedasticity (Prob > chi2 = 0.0000). The Wooldridge test is applied to detect autocorrelation, with the outcome F (1, 80) = 4.289, Prob > F = 0.0416; it also confirms the presence of autocorrelation in the dataset. Pesaran's CD test (2004) result shows a p-value of 0.0000, confirming significant cross-sectional dependence. However as per VIF test, no multicollinearity is detected. Finally, according to the results of Durbin-Wu-Hausman test for potential endogeneity, LR, ROE, NPM, and IAPE are endogenous variables in the study which need to be addressed through a more robust model (GMM) for better accuracy of result.

*4.3.2 Generalized Method of Moments (GMM) Model:*

To address diagnosed issues such endogeneity, heterogeneity, cross-sectional dependence, autocorrelation and the dynamic nature of the relationship between firm specific factors and PE ratio; the two step system GMM estimation (Arellano -Bover/Blundell-Bond estimation) is adopted for better accuracy of result. The results, shown in *Table 3*, demonstrate that the predictor variables effectively estimate the response variable, as indicated by the low Prob > chi2= 0.0000 value. Lagged dependent variable (L1.PE) shows significant positive results which confirms the persistence of PE ratios over time. It also validates the choice of dynamic panel model. System GMM is chosen as it can generate consistent estimates in panels with large cross-sections (N) and relatively short time periods (T), while also controlling simultaneity bias and measurement errors. The result of the model can be written as follows:

$$P/E = 53.87 + 1.021CR - 12.17LR + 5.925Size - 11.76ROE - 208.85\ NPM + 22.19\ DPR - 278.79\ GDP\ GR + 99.013\ WALR + 744.09\ IR + 4.825\ SMIR - 179.67\ FF + 0.529\ IAPE + \varepsilon_{it}$$

DOI: 10.53461/jujbr.v25i02.99

Current Ratio, Asset Size, Dividend Payout Ratio, Inflation Rate, Stock Market Index return, and Industry Average PE Ratio have significant positive impact on PE ratio according to the result of System GMM. In contrast, significant negative impact of Debt-to-Equity Ratio, Net Profit Margin, GDP Growth Rate, and Free Float are revealed. ROE and lending rates are statistically insignificant. Sargan test (p=0.6462) confirms the validity of instruments, second-order autocorrelation is absent as indicated by AR (2) (p = 0.7998), confirming a well-specified and robust model.

**Table 3: Two Step System GMM Result**

| *PE* | | *An increase of approximately 0.76 points in current PE is associated with a 10-point higher PE for last year, which demonstrates some persistence in valuations.* |
|---|---|---|
| *L1.* | 0.0756** *0.0000* | |
| *Current Ratio* | 1.021** *0.0000* | An increase of approximately 0.51 points for PE from a liquidity increase of 0.5 points; thus, the implication is that investors value short-term solvency more than cash liquidity. |
| *Debt to Equity Ratio* | -12.1761** *0.0000* | -12.1761 An increase of 0.1 points of leverage will reduce PE by about 1.22 points; thus, the market is not very keen on higher debt levels. |
| *Asset Size* | 5.925** *0.0000* | A 10% increase in total assets (log scale) increases PE by approximately 0.59 points, indicating a small premium for larger firms. |
| *Return on Equity* | -11.7682 *0.1270* | No significant impact. |
| *Net Profit Margin* | -208.85** *0.0000* | 1% increase in NPM reduces PE by approximately 2.09 points, possibly signaling limited growth potential despite profitability. |
| *Dividend Payout Ratio* | 22.192** *0.0000* | 5% rise in DPR increases PE by 1.11 points, indicating investors prefer dividend distribution. |
| *GDP Growth Rate* | -278.79** *0.0000* | A 1% rise in GDP growth reduces PE by ~2.79 points, possibly due to inflationary effects or rise in earnings. |
| *Weighted Average Lending Rate* | 99.013 *0.065* | No significant impact. |
| *Inflation Rate* | 744.09** *0.0000* | 1% rise in inflation boosts PE by nearly 7.44 points, reflecting inflation pass-through in valuations. |
| *Stock Market Index Return* | 4.825** *0.001* | 5% rise in market return raises PE by almost 0.24 points, indicating sentiment spillover from broader market gains. |
| *Free Float* | -179.67** *0.0000* | A 5% increase in free float lowers PE by approximately 8.98 points, suggesting oversupply or volatility concerns. |

DOI: 10.53461/jujbr.v25i02.99

| | | |
|---|---|---|
| *Industry Average PE Ratio* | 0.529**<br>*0.0000* | 5-point increase in industry PE raises firm PE by 2.65 points, showing sectoral benchmarking effects. |
| *Constant* | 53.87**<br>*0.0000* | When other explanatory variables are zero, the model predicts a PE ratio of 53.87 |
| *Sargan Stat. (Prob > chi2)* | 0.6462 | |
| *AR(1) Stat.* | 0.0452 | |
| *AR(2) Stat.* | 0.7998 | |
| *No. of obv.* | 486 | |
| *Number of groups =* | 81 | |
| *Prob > chi2* | 0.0000 | |

*Source: Author's own computation*

These findings support the $H_{1(a)}$, $H_{1(b)}$, $H_{1(c)}$, $H_{1(e)}$, $H_{1(f)}$, $H_{2(a)}$, $H_{2(c)}$, $H_{2(d)}$, $H_{2(e)}$, $H_{2(f)}$ (reject $H_{1(d)}$, $H_{2(b)}$) and prompt further examining the statement of $H_3$.

*4.3.3 Cross industry P/E ratio influential factor analysis:*

In Table 4, a heatmap visually depicts valuation differences across industries and years. Darker colors represent higher P/E ratios (overvaluation or optimism) and lighter shades represent lower P/E ratios (undervaluation or earnings strength) in the map. The Ceramic and Miscellaneous sectors exhibited exceptionally high P/E ratios in 2016–2017 (deep red zones), signaling speculative or overvalued pricing during those years. Almost all industries showed lighter colors in 2018–2019, indicating a market-wide valuation correction.

**Table 4: Industry wise comparative heatmap analysis of average P/E ratio**

| Year | Cement | Ceramic | Engineering | Food & Allied | Fuel & Power | IT | Miscellaneous | Pharma & Chemical | Services & Real Estate | Telecommunication | Textile |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2016 | 26.96 | 162.43 | 35.26 | 30.42 | 33.44 | 27.68 | 157.01 | 26.96 | 30.04 | 67.12 | 16.51 |
| 2017 | 57.58 | 276.29 | 33.29 | 30.87 | 21.32 | 23.78 | 34.21 | 29.1 | 26.95 | 38.88 | 19.22 |
| 2018 | 38.49 | 50.89 | 23.14 | 40.57 | 14.41 | 22.01 | 25.65 | 28.86 | 21.26 | 112.64 | 18.68 |
| 2019 | 19.07 | 28.01 | 21.16 | 22.12 | 10.29 | 22.78 | 37.53 | 26.06 | 14.93 | 18.79 | 14.98 |
| 2020 | 19.07 | 104.23 | 49.37 | 32.44 | 13.73 | 41.64 | 59.47 | 37.69 | 22.22 | 21.43 | 34.21 |
| 2021 | 14.48 | 64.48 | 42.18 | 44.12 | 11.67 | 38.11 | 38.08 | 49.15 | 21.48 | 15.99 | 26.58 |
| 2022 | 42.3 | 73.85 | 115.39 | 28.56 | 14.42 | 37.68 | 49.77 | 50.16 | 20.37 | 13.72 | 17.58 |

*Source: Author's own computation*

At the time of the covid-19 pandemic phase, Pharma & Chemical and IT sectors turned darker again, questioning strong earnings expectations and likely investor rotation into health and technology stocks-while Fuel & Power and Telecommunication remained light, questioning low valuations. As seen in subsequent periods in 2022, Engineering and Ceramic reclaimed above-average P/E ratios on the heatmaps, a good indication of sector recovery and investor interest resumed in those sectors, while once again, traditional sectors such as Textile, Fuel & Power, and Telecommunication fluctuated at low value.

DOI: 10.53461/jujbr.v25i02.99

The empirical analysis in *Table 5* shows that the factors influencing P/E ratios vary across industries by employing Panel Corrected Standard Errors Model (PCSE) instead of GMM model as N <T in most industries of the selected sample which violates the preliminary assumption for GMM adoption. The Tarvel & Leisure and Tannery sectors were excluded for cross industry analysis due to limited eligible companies.

***Cement:*** Cement industry's PE ratio is positively linked to liquidity, dividend policy and macroeconomic indicators such as inflation, stock market index return of the country. Asset size, ROE, GDP GR show negative influence. Therefore, despite capital intensity and macro volatility, investors tend to prefer dividend paying cement firms.

***Ceramic:*** PE ratios are favorably influenced by DPR, loan rates, and industry average PE ratios demonstrate that investors prefer sector-wide performance and earnings distribution. In contrast, asset sizes have a negative influence on valuation, presumably due to inadequate utilization. The industry's susceptibility to GDP growth indicates its reliance on macroeconomic cycles.

**Table 05: Cross Industry Analysis Using Panel Corrected Standard Errors Model (PCSE)**

| Industry | | Constant | Current Ratio | Liability to Equity Ratio | Ln Asset | ROE | NPM | DPR | GDP Growth Rate | Weighted Average Lending Rate | Inflation Rate | Stock Market Index Return | Free Float | Industry Average PE Ratio | R-squared | Prob > chi2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cement | | 187.29* | 7.366** | -34.98** | -22.22** | -588.79** | 285.89** | 34.30** | -376.41** | 775.44** | 1167.31** | 25.57** | -12.31 | -0.56** | 0.99 | 0.00 |
| | *Pvalues* | *0.01* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.63* | *0.00* | | |
| Ceramic | | 1456.32* | -4.88 | 71.85 | -296.63** | 1190.42 | 1168.67 | 152.66** | -6726.83** | 14009.51** | -88.54 | -139.97** | -550.97 | 10.57** | 0.92 | 0.00 |
| | *Pvalues* | *0.03* | *0.85* | *0.50* | *0.01* | *0.26* | *0.45* | *0.00* | *0.00* | *0.00* | *0.93* | *0.01* | *0.08* | *0.00* | | |
| Engineering | | -184.17 | 34.76 | -3.30 | -0.77 | -34.38 | -710.84 | -0.59 | -664.20** | -859.73** | 6684.07** | 227.77** | 106.94 | -5.55** | 0.26 | 0.00 |
| | *Pvalues* | *0.05* | *0.08* | *0.25* | *0.84* | *0.73* | *0.11* | *0.94* | *0.00* | *0.00* | *0.00* | *0.00* | *0.23* | *0.00* | | |
| Food & Allied | | 318.56** | -19.23* | -57.17** | -20.12** | 81.96 | -142.01 | 44.33** | -10.32 | -227.23 | 1162.45** | 35.82** | -51.04* | -3.22** | 0.74 | 0.00 |
| | *Pvalues* | *0.00* | *0.02* | *0.00* | *0.00* | *0.09* | *0.10* | *0.00* | *0.94* | *0.30* | *0.00* | *0.00* | *0.02* | *0.00* | | |
| Fuel & Power | | 175.66** | -0.35 | 3.171** | -12.76** | -167.8** | 5.88 | 42.63** | -8.34 | -246.93* | 160.75 | 1.27 | -42.31* | -0.36 | 0.69 | 0.00 |
| | *Pvalues* | *0.00* | *0.35* | *0.00* | *0.00* | *0.00* | *0.21* | *0.00* | *0.95* | *0.02* | *0.26* | *0.81* | *0.01* | *0.79* | | |
| IT | | 363.20** | -9.72* | -6.60 | -32.02** | -733.03** | 80.07 | 18.58 | -254.53** | 164.33* | 415.82** | 0.59 | -80.72* | 0.06 | 0.83 | 0.00 |
| | *Pvalues* | *0.00* | *0.03* | *0.74* | *0.00* | *0.00* | *0.25* | *0.09* | *0.00* | *0.03* | *0.00* | *0.84* | *0.02* | *0.75* | | |
| Miscellaneous | | -70.78 | 65.471** | 35.33 | -3.02 | 90.61 | -443.01 | -68.35 | 691.19 | -1713.29 | 5032.14** | 119.05** | -113.87 | -5.799** | 0.44 | 0.00 |
| | *Pvalues* | *0.65* | *0.00* | *0.37* | *0.68* | *0.85* | *0.29* | *0.23* | *0.19* | *0.12* | *0.00* | *0.00* | *0.52* | *0.00* | | |
| Pharma & Chemical | | -157.22** | 1.23 | -7.821* | -8.225** | -0.57 | -132.18 | 30.21** | 1809.23** | -612.88** | 9418.54** | 2.04 | 14.15 | -18.28** | 0.41 | 0.00 |
| | *values* | *0.00* | *0.06* | *0.01* | *0.00* | *0.97* | *0.06* | *0.00* | *0.00* | *0.00* | *0.00* | *0.50* | *0.33* | *0.00* | | |
| Service & Real Esate | | 291.83 | 1.11 | 3.90 | -29.61 | -443.29* | 132.84 | 0.61 | 43.89 | -377.77 | 40.84 | -13.71 | 66.68 | 0.64** | 0.78 | 0.00 |
| | *values* | *0.06* | *0.91* | *0.58* | *0.12* | *0.02* | *0.36* | *0.94* | *0.81* | *0.08* | *0.89* | *0.18* | *0.35* | *0.00* | | |
| Telecom | | -3959.73** | 56.63** | -50.72** | 301.60** | 387.51** | -793.86* | 5.54 | 117.28 | -3606.54** | -275.69 | -111.64** | 5484.23** | 10.54** | 0.99 | 0.00 |
| | *Pvalues* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.92* | *0.84* | *0.00* | *0.55* | *0.00* | *0.00* | *0.00* | | |
| Textile | | -33.82 | 0.77 | 14.89** | -3.65 | -118.01* | 65.34 | 21.66** | -630.61** | 699.94** | 212.27** | 0.41 | -17.32* | 2.252** | 0.74 | 0.00 |
| | *Pvalues* | *0.08* | *0.09* | *0.00* | *0.07* | *0.03* | *0.26* | *0.00* | *0.00* | *0.00* | *0.00* | *0.83* | *0.04* | *0.00* | | |
| Travel & Leaisure, Tannery | | Excluded for industry comparison as only one company is considered for overall industry | | | | | | | | | | | | | | |

** represents significant at the 0.05 level ** represents significant at the 0.01 level*

*Source: Author's own calculation*

DOI: 10.53461/jujbr.v25i02.99

***Engineering:*** Investors react positively to liquidity insignificantly and sector valuation trends negatively, while inflation also drives PE positively. Macroeconomic indicators have significant influence than firm specific factors on PE ratio of engineering sector.

***Food & Allied:*** PE is negatively influenced by CR, LR, and FF, while it is strongly positively affected by DPR, IR, and SMIR. This reveals industry's attractiveness to investors who prioritize income and its ability to withstand inflation.

***Fuel & Power:*** Dividends have positive impact on PE ratios, aligning with dividend signaling theory. Large firms may have capital cost tensions, as indicated by their sensitivity to lending rates. FF and ROE show detrimental effect on PE, though.

***IT:*** Negative impacts from asset size and ROE indicate inefficient investment. IR and WALR both benefit PE, possibly due to expectations of tech-driven cost pass-through. However, FF and GDP GR rate have a negative impact on the PE ratios of IT companies.

***Miscellaneous:*** PE is positively affected by macroeconomic variables- inflation and stock market index return but negatively affected by industry PE averages, which reflects firm specific risks dominating the valuation.

***Pharma & Chemical:*** Macroeconomic variables (GDP and inflation) and firm specific variables DPR have a significant positive impact on PE. Negative asset size impact indicates diseconomies of scale. The high inflation sensitivity supports the cost-push theory of pricing power in keeping with the defensive stock theory.

***Service & Real Estate:*** This sector's PE is positively influenced by industry trends and negatively with financial performance indicator-ROE. Macroeconomic forces have limited significant influence on their PE

***Telecom:*** Telecom presents broad sensitivities in most of the variables. It identifies many important factors: profitability (ROE, NPM), asset base, WALR, and sector benchmarks (SMIR, FF) indicating complex investor valuation behavior as regards capital- intensive, regulated industries. Theoretical knowledge from market efficiency and signaling models is particularly indicative for the telecom industry.

***Textile:*** It is directed by profitability (ROE), dividend policy (DPR), and macro conditions - WALR, accompanied by low sector benchmarks – SMIR, which reflects P/E impact from an investor perspective was focused on the importance placed on performance consistency. Inflation's positive influence aligns with cost pass-through in export-oriented markets. Firms are rewarded with efficient capital use (Asset size) and stable returns.

## 5. Results and Discussions

CR, size, DPR exerts a significant positive impact on the P/E ratio, while LR, ROE and NPM reveal a significant negative effect across the sample of the study.

DOI: 10.53461/jujbr.v25i02.99

These findings coincide with signaling and liquidity preference theories, suggesting that investors similarly reward liquidity, scale, and dividends, while penalizing excessive leverage and high profitability that is linked to stagnant and mature, low-growth opportunities.

Among the examined macroeconomic variables, WALR has insignificant positive impact while IR poses significant positive effects, and GDP GR causes negative influence on P/E. However, non-financial indicators: SMIR, IAPE influence the P/E ratio positively and FF negatively. These demonstrate macro-financial conditions and sector standards elevate valuations, while GDP slowdowns and higher free float may dampen investor confidence and price stability.

Industry-wise analysis reveals that determinants of P/E ratio vary across sectors (support $H_3$). Among the firm specific indicators- most influencing variables are ROE and DPR. Positive influence of IR on P/E ratio is noted for cement, engineering, food & allied, IT, miscellaneous, pharma & chemical and textile sector. Notably, P/E ratio of cement, engineering, food & allied, miscellaneous and telecom industry are influenced by SMIR. FF significantly affects the P/E ratio in industries such as food & allied, fuel & power, IT, Telecom and textile. P/E of cement. Engineering, food & allied, miscellaneous, pharma & chemical companies tend to move reversely whereas ceramic, service, telecom and textile tend to move directly with the IAPE. These patterns are consistent with sectoral heterogeneity and behavioral finance theories which suggest that investors' perception of value varies by industry due in part to profitability signals as well as dividend policy, inflation hedging, effects of market sentiment, and liquidity effects whose implications for sector-specific investment strategies and corporate strategy.

Overall, the study confirms that firm fundamentals have the biggest impact on P/E ratios in Bangladesh out of all variable groupings, followed by macroeconomic and non-financial factors. This indicates that investors mainly look at a company's financial soundness when determining valuation. The findings of the study will add value to academics as this is the only recent study in Bangladesh that examines firm-level, non-financial, and macroeconomic determinants of P/E ratios in an integrated manner by using multi sector data set.

*Table 6* presents the key findings in comparative manner with prior studies and possible logical reasons behind the result:

**Table 6: Result discussion and comparative analysis with prior studies**

| Variable | Result | Literature Findings | Simila-rity | Possible Logical Reason |
|---|---|---|---|---|
| *CR* | Positive, significant | Positive (Almajali et al., 2012; Jahan et al., 2023) | ✓ | Risk aversion and a desire for solvency make liquidity valuable. |
| *LR* | Negative, significant | Mostly negative (Afza & Tahir, | ✓ | Financial risk is penalized for high leverage in volatile credit markets. |

DOI: 10.53461/jujbr.v25i02.99

| Variable | Result | Literature Findings | Simila-rity | Possible Logical Reason |
|---|---|---|---|---|
| | | 2012; Khan & Amanullah, 2012) | | |
| *Size* | Positive overall; mixed by sector | Mixed: positive (Freihat, 2019); negative (Kecheng, 2022) | ≈ | Large firms are rewarded for stability; negative sectors show mature valuation compression. |
| *ROE* | Negative / insignificant | Mostly positive (Dutta et al., 2018; Jahan et al., 2023) | ✕ | High profitability signals maturity, low growth; denominator effect in P/E. |
| *NPM* | Negative, significant | Positive in most studies (Dutta, 2018) | ✕ | Low growth is implied by high profitability; this is known as the denominator effect; investors in Bangladesh seek growth rather than steady earnings. |
| *DPR* | Positive, significant | Positive (Sezgin, 2010; Antalovschi & Cox, 2021) | ✓ | Dividend payout is a sign of strong governance and quality. |
| *GDP GR* | Negative, significant | Positive (Khan & Amanullah, 2012) | ✕ | Because of exchange-rate stress, regulatory actions, and a decline in investor confidence, GDP growth did not translate into stock market optimism. |
| *WALR* | Positive but insignificant | Negative (Du & Li, 2015) | ✕ | Single digit interest rate regime has distorted risk-free benchmark; profitability and leverage interacted unusually with valuation and thus investors favored liquidity and dividends over high accounting returns. |
| *IR* | Positive, significant | Positive (Du & Li, 2015; Akter & Chaity, 2013) | ✓ | The combination of inflation passthrough and nominal earnings effects results in higher valuation levels. |
| *SMIR* | Positive, significant | Positive (Jitmaneeroj, 2017) | ✓ | Market sentiment spillover effect broadens multiple via index up-trend. |
| *FF* (%) | Negative, significant | Positive (Le & Gregoriou, 2022; El-Nader, 2018) | ✕ | Illiquidity premium: low-float firms can capture scarcity/speculation premium, while high-float firms will be under-supplied (and will be traded down). |
| *IAPE* | Mixed (+/− by sector) | Positive peer effect (Zhang, 2022; Afza & Tahir, 2012) | ≈ | Capital-intensive sectors act counter-cyclically to consumer & textile sectors; thus, mixed industry P/E responses |

Unlike the prior studies, it identifies industry specific drivers of valuation. Therefore, the study's findings will guide investors, analysts and regulators on how firm fundamentals and macro conditions jointly shape equity valuation. Moreover, it will also help them informed portfolio diversification choice by sectoral analysis and policy design decisions.

DOI: 10.53461/jujbr.v25i02.99

## 6. Concluding Remarks

The research findings from GMM and PCSE analyses demonstrate that liquidity together with size and dividend payout and inflation positively affect valuation multiples in Bangladesh. The results confirm multiple emerging-market studies but show disagreement with traditional profitability-based valuation theory. The financial performance variations between the two companies result from Bangladesh's monetary conditions after rate caps and market liquidity issues and the different stages of development within their industries which influence how investor views growth potential and risk levels and earnings performance.

The study's findings on P/E ratios of Bangladeshi listed firms offer practical insights for academics, investors, stock issuers and regulators. Academics and analysts can learn new valuation drivers. Investors can estimate stock valuation, while issuers may better align IPO pricing strategies, regulators can design policies accordingly. The results can help with effective investment choices, as well as informed planning for corporate financial management. However, certain issues such as sample scope by excluding financial institutions, short time span (2016-2022) by excluding post pandemic scenario, other macroeconomic variables by not considering exchange rate volatility, political risk, investor sentiment etc. limits the study's impact. Future studies could benefit by integrating issues such as inclusion of financial companies, post pandemic analysis, corporate governance quality, exploring foreign ownership impact, investor sentiment and regulator's policy related issues; to enrich the understanding of P/E influencers.

## References

Adebisi, O. S., & Lawal, K. O. (2015). Equity shares price determinants: A survey of literature. *Oman Chapter of Arabian Journal of Business and Management Review*, *5*(3), 38–44. https://doi.org/10.12816/0019112

Afza, D. T., & Tahir, S. (2012). Determinants of Price-Earnings Ratio: The Case of Chemical Sector of Pakistan. *Journal of Business Finance & Accounting*, *2*(8), 133–150.

Akter, S. & Chaity, N. S. (2013). Impact of Financial and Macro-economic Factors on Share Price Determination: A Study on Private Commercial Banks of Bangladesh. *Journal of Science and Technology*, *5*(2), 1–21.

Alifi, A., & Kurniawati, L. (2024). The influence of earning management, dividend policy, and free float ratio on stock returns. *Ilomata International Journal of Tax and Accounting*, *5*(1), 128–143. https://doi.org/10.52728/ijtc.v5i1.1022

Almajali, A. Y., Alamro, S. A., & Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman Stock Exchange. *Journal of Management Research*, *4*(2). https://doi.org/10.5296/jmr.v4i2.1482

Almumani, Dr. M. A. (2014). Determinants of Equity Share Prices of the Listed Banks in Amman Stock Exchange: Quantitative Approach. *International Journal of Business and Social Science*, *5*(1), 91–104.

DOI: 10.53461/jujbr.v25i02.99

Antalovschi, N. P., & Cox, R. A. (2021). Financial factors affecting price-to-earnings ratios in Canada. *International Journal of Finance*, *6*(2), 43–61.

Basu, S. (1977). Investment performance of common stocks in relation to their price-earnings ratios: A test of the efficient market hypothesis. *The Journal of Finance*, *32*(3), 663. https://doi.org/10.2307/2326304

Du, X., & Li, J. (2015). Study on the factors influencing the PE ratio of Baogang Group. *Proceedings of the 2015 International Conference on Education, Management, Information and Medicine*. https://doi.org/10.2991/emim-15.2015.178

Dutta, K. D., Saha, M., & Das, D. C. (2018). Determinants of P/E ratio: An empirical study on listed manufacturing companies in DSE. *International Journal of Scientific and Research Publications (IJSRP)*, *8*(4), 167–174.

El-Nader, G. (2018). Stock liquidity and free float: Evidence from the UK. *Managerial Finance*, *44*(10), 1227–1236. https://doi.org/10.1108/mf-12-2017-0494

Fama, E. F. (1970). Efficient Capital Markets: A review of theory and empirical work. *The Journal of Finance*, *25*(2), 383. https://doi.org/10.2307/2325486

Freihat, A. R. (2019). Factors affecting price to earnings ratio (P/E): Evidence from the emerging market. *Risk Governance and Control: Financial Markets and Institutions*, *9*(2), 47–56. https://doi.org/10.22495/rgcv9i2p4

Graham, B., & Dodd, D. (1934). *Security Analysis*. McGraw Hill Professional.

Houmes, R., & Chira, I. (2015). The effect of ownership structure on the price earnings ratio — returns anomaly. *International Review of Financial Analysis*, *37*, 140–147.

Jahan, N., Hasan, Md. J., & Sanam, T. (2023). An Empirical Investigation of the Association between P/E Ratio and Financial Performance of Non-conventional Banks in Bangladesh. *International Journal of Research Publication and Reviews*, *4*(9), 1726–1731.

Jitmaneeroj, B. (2017). Does investor sentiment affect price-earnings ratios? *Studies in Economics and Finance*, *34*(2), 183–193.

Kecheng, S. (2022). Research on the Influencing Factors of the P/E Ratio of Listed Companies. *International Conference on Education, Management, Business and Economics (ICEMBE 2022)*.

Khan, M. N., & Amanullah. (2012). Determinants of Share prices at Karachi Stock Exchange. *International Journal of Business and Management Studies*, *04*(1), 111–120.

Kurihara, & Yutaka. (2004). The Relationship between Exchange Rate and Stock Prices during the Quantitative Easing Policy in Japan. *International Journal of Business*, *11*(4), 375–386.

Lalon, R. M., & Mahmud, T. (2021). Nexus between price earnings (P/E) ratio and financial performance of commercial banks: Dynamic Panel evidence from Bangladesh. *Journal of Financial Markets and Governance*, *1*(1).

Le, H., & Gregoriou, A. (2022). Liquidity and asset pricing: Evidence from a new free-float-adjusted price impact ratio. *Journal of Economic Studies*, *49*(4), 751–771.

Mehta, A. (2025). *Understanding the price-to-earnings ratio: A key metric for stock valuation. Academy of Accounting and Financial Studies Journal*, *29*(1), 1–3.

DOI: 10.53461/jujbr.v25i02.99

Naknok, S. (2022). *Firm performance indicators as a fundamental analysis of stocks and a determinant of a firm's operation*. International Journal of Economics and Business Administration, X(1), 190–213. https://doi.org/10.35808/ijeba/758

Nicholson, S. F. (1960). Price-earnings ratios. *Financial Analysts Journal*, *16*(4), 43–45. https://doi.org/10.2469/faj.v16.n4.43

Pearson, H.M. (2004). General diagnostic tests for cross section dependence in panels. CESifo Working Paper Series, No. 1229

Rahman, N. (2019). An Empirical Analysis of weak form market efficiency: Evidence from Dhaka Stock Exchange. *Jahangirnagar Journal of Finance & Banking*, *07*, 51. https://doi.org/10.13140/RG.2.2.19235.32803

Rahman, N., & Harun, Md. Y. (2023). Examining volatility in Bank Stock Prices: a comparative exploration of dividend policies, macroeconomic influences, and company-specific factors. *Jahangirnagar University Journal of Business Research*, *23*(2), 123–146. https://doi.org/10.53461/jujbr.v23i2.30

Ramcharran, H. (2002). An empirical analysis of the determinants of the P/E ratio in emerging markets. *Emerging Markets Review*, *3*(2), 165–178.

Ramij, Md. G., & Das, A. (2021). An empirical study on microeconomic factors affecting stock prices: A study on insurance companies listed in Dhaka Stock Exchange. *Khulna University Business Review*, *16*(1).

Sajeetha, A. M., Nusaika, M. F., & Safana, M. N. (2023). An empirical study on determinants of price earnings ratio: Evidence from listed food, beverage and tobacco companies in Colombo Stock Exchange. *Asian Journal of Economics, Business and Accounting*, *23*(10), 32–43.

Shao, S., Stoumbos, R., & Zhang, X. F. (2021). *The power of firm fundamental information in explaining stock returns. Review of Accounting Studies*, *26*(4), 1249–1289.

Siegel, J. G., & Shim, J. K. (1981). Quality of earnings: A key factor in financial planning. *Long Range Planning*, *14*(6), 68–75.

Sindhu, M. I., Bukhari, S. M. H., & Hussain, A. (2014). Macroeconomic Factors do influence Stock Price: A Case Study on Karachi Stock Exchange. *Journal of Economics and Sustainable Development*, *5*(7), 114–124.

Sultana, Most. S., Kalam, A., & Begum, H. (2017). Factors influencing the trading behavior of investors in capital market: An empirical study on Dhaka Stock Exchange, Bangladesh. *IOSR Journal of Business and Management*, *19*(01), 01–09.

Wenjing, H. (2008). Price-Earnings Ratio and Influence factors: Evidence from China. *VASSA*.

Zhang, H. (2022). An Empirical Analysis of the Determinants of the P/E Ratio A Case Study of China's Media Industry. *J Journal of Family Business and Management Studies*, *14*(2), 37–58.

DOI: 10.53461/jujbr.v25i02.99

## Appended Part

**Appendix Table 01: Summary of descriptive statistics**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| P/E | 567 | 37.33443 | 73.04843 | 4.665045 | 960.108 |
| CR | 567 | 2.315006 | 2.933185 | 0.077407 | 49 |
| LR | 567 | 1.379329 | 1.568177 | 0 | 13.3363 |
| Size | 567 | 8.933723 | 1.561084 | 5.336095 | 12.9752 |
| ROE | 567 | 0.1439507 | 0.208129 | 0.000666 | 1.90695 |
| NPM | 567 | 0.1326303 | 0.187193 | 0.002065 | 1.41706 |
| DPR | 567 | 0.6130513 | 0.915372 | 0 | 18.2335 |
| GDP GR | 567 | 0.0664766 | 0.013572 | 0.03448 | 0.07882 |
| WALR | 567 | 0.0883571 | 0.012452 | 0.0709 | 0.1039 |
| IR | 567 | 0.0596429 | 0.00679 | 0.0552 | 0.0756 |
| SMIR | 567 | 0.0730589 | 0.237619 | -0.26423 | 0.54183 |
| FF | 567 | 0.4999854 | 0.194665 | 0.05 | 0.9467 |
| IAPE | 567 | 20.68584 | 8.571794 | 9.51 | 72.47 |

*Source: Author's own computation*

**Appendix Table 02: Correlation Analysis**

| | PE | CR | LR | Size | ROE | NPM | DPR | GDP GR | WALR | IR | SMIR | FF | IAPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PE | 1.000 | | | | | | | | | | | | |
| CR | 0.023 | 1.000 | | | | | | | | | | | |
| LR | -.084* | -.264** | 1.000 | | | | | | | | | | |
| Size | -.145** | -0.047 | .366** | 1.000 | | | | | | | | | |
| ROE | -.128** | -0.068 | .172** | 0.055 | 1.000 | | | | | | | | |
| NPM | -.144** | .140** | .362** | .295** | .205** | 1.000 | | | | | | | |
| DPR | .371** | -0.031 | 0.024 | -0.005 | 0.001 | -0.067 | 1.000 | | | | | | |
| GDP GR | 0.039 | 0.013 | -0.021 | 0.011 | -0.013 | -0.006 | 0.059 | 1.000 | | | | | |
| WALR | 0.010 | -0.044 | 0.019 | .116** | -0.021 | -0.029 | 0.074 | .313** | 1.000 | | | | |
| IR | 0.035 | -0.007 | -0.024 | -0.082 | 0.017 | 0.029 | -0.037 | -0.055 | -.650** | 1.000 | | | |
| SMIR | 0.020 | 0.063 | -0.021 | -0.025 | 0.009 | 0.006 | -0.002 | .433** | -.258** | -.100* | 1.000 | | |
| FF | 0.042 | 0.067 | -.176** | -.380** | -.428** | -.139** | -.121** | -0.017 | 0.007 | -0.036 | -0.001 | 1.000 | |
| IAPE | .161** | 0.043 | -.187** | -.227** | -0.070 | -.154** | 0.052 | .270** | -.093* | -0.055 | .451** | .165** | 1.000 |

**. Correlation is significant at the 0.05 level (2-tailed).*

***. Correlation is significant at the 0.01 level (2-tailed).*

*Source: Author's own analysis using SPSS*

**Appendix Table 03: Multicollinearity Test**

| Variable | VIF | 1/VIF |
|---|---|---|
| Current Ratio | 1.17 | 0.85825 |
| Debt to Equity Ratio | 1.44 | 0.69477 |
| Asset Size | 1.47 | 0.68214 |
| ROE | 1.33 | 0.7547 |
| NPM | 1.33 | 0.74914 |
| DPR | 1.04 | 0.95921 |
| GDP Growth Rate | 1.64 | 0.60887 |
| Weighted Average Lending Rate | 1.95 | 0.51341 |
| Inflation Rate | 1.49 | 0.67073 |
| Stock Market Index Return | 1.8 | 0.55505 |
| Free Float | 1.52 | 0.65947 |
| Industry Average PE Ratio | 1.46 | 0.68447 |
| Mean VIF | 1.47 | |

*Source: Author's own Computation using Stata*

DOI: 10.53461/jujbr.v25i02.99

**Appendix Table 04. Summary Results from Random,Fixed Effect model and Hausman Test with Diagnostic Tests**

| Dependent Variable | P/E Ratio | | |
|---|---|---|---|
| Independent Variables | *Random* | *Fixed* | *Hausman Test* |
| CR | 1.395 | 2.5914 | chi2(6) = 28.22<br>Prob>chi2 = 0.0051<br>Fixed is accepted |
| LR | 1.059 | -3.3436 | |
| Size | -5.351 | -22.09 | |
| ROE | -45.12* | -13.4286 | |
| NPM | -43.78* | -289.1** | |
| DPR | 27.84** | 23.25** | |
| GDP GR | 63.484 | -1.7158 | |
| WALR | -373.71 | -165.586 | |
| IR | 1092.39* | 1092.4* | |
| SMIR | -12.158 | -9.683 | |
| FF | -17.48 | -42.498 | |
| IAPE | 0.6929 | 0.6063 | |
| Constant | 38.5197 | 218.315 | |
| Prob > chi2 | 0.0000 | | |
| Prob > F | | 0.0000 | |
| Diagnostic Tests | Results | | Remarks |
| | Group-wise heteroskedasticity test (Modified Wald Test) | | |
| Heteroscedasticity | chi2 (81) = 880000, Prob > chi2 = 0.0000 | | Present |
| | Wooldridge test for autocorrelation in panel data | | |
| Autocorrelation | Wooldridge:<br>F (1, 80) = 4.289<br>Prob > F = 0.0416 | | Present |
| | Pesaran's test of cross-sectional independence | | |
| Cross-sectional dependence | Pesaran: CD = 24.722,<br>Prob = 0.0000 | | Present |
| Multicollinearity | VIF=1.47 | | Absent |
| Endogeneity | Durbin-Wu-Hausman Test | | |
| | Prob > F | | Remarks |
| CR | 0.2359 | | Exogenous |
| LR | 0.0499 | | Endogenous |
| Size | 0.2283 | | Exogenous |
| ROE | 0.0234 | | Endogenous |
| NPM | 0.0180 | | Endogenous |
| DPR | 0.1692 | | Exogenous |
| GDP GR | 0.6557 | | Exogenous |
| WALR | 0.5890 | | Exogenous |
| IR | 0.1955 | | Exogenous |
| SMIR | 0.1627 | | Exogenous |
| FF | 0.7080 | | Exogenous |
| IAPE | 0.0001 | | Endogenous |

*Source: Author's own computation*

DOI: 10.53461/jujbr.v25i02.99