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RESEARCH ARTICLE

Stock price determinants on Abu Dhabi Securities Exchange: A Python-based OLS approach

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ABSTRACT

By examining the key determinants of equity valuation on the Abu Dhabi Securities Exchange (ADX), this paper aims to contribute to the existing literature by addressing an empirical gap within the rapidly evolving financial market of the United Arab Emirates. Utilizing Ordinary Least Squares (OLS) regression in Python, the study investigates ADX-listed companies over the 2019-2024 period and assesses the influence of key valuation and corporate governance variables, including price-earnings ratio (PER), dividends per share (DPS), and board size (BS), on stock price formation. Based on the results, the empirical evidence shows that PER moderated by the size shows a notable impact on stock prices. These findings offer practical insights for investors seeking data-driven decision-making and for policymakers developing financial strategies in emerging markets. The study contributes original value by applying a Python-based approach to a dataset and geographical context that remains largely underexplored in academic research.

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1. Introduction

Recently, researchers and financial practitioners have shown interest in the stock market trends of the UAE, largely due to its distinctive and appealing macroenvironment. This has been shaped by the substantial oil wealth and ongoing methods of income diversification. Various studies point out the strong link between oil prices and the stock market performance in the Gulf Cooperation Council (GCC) countries, of which the UAE is a part. For instance, Lahiani and Arouri (2010) found that oil price shocks significantly affect stock returns in the UAE. This shows a non-linear relationship depending on the magnitude and direction of price movements. Another study indicated that global oil market trends correlate with the UAE stock performance, reflecting the influence of investor sentiment on price dynamics. Beyond oil, other macroeconomic variables, including GDP, inflation, interest rates, and monetary aggregates, also contribute to market fluctuations. In a study by Abdulhadi et al, (2023), positive economic indicators have been identified as reliable predictors of stock price dynamics. Maghyereh and AlKandari (2007) further emphasize that while oil price is a major driver of equity returns, broader economic conditions also contribute to stock price formation in the region.

Stock price determinants in the UAE are still complicated with the integration of the market. The financial integration of UAE stock markets, which has established a long-term equilibrium relationship between the various indices, has been a significant finding in a study by Kapar et.al (2019). This integration implies that the stock prices do not move independently but reflect the economic forces influenced by regional or global changes.

specifically, versifies its economy diversifies away from oil, its focus has shifted to other sectors, specifically innovation with technology. In a study in 2022 conducted by Othman et.al. on the relationship between blockchain technology and the stock market, the study indicated that the UAE bank institutions have strong relationships, proving how technological advances affect the stock returns. Changes in the stock price movements have greatly influenced the investor behavior, sentiment, and psychological factors, causing the volatility of the stock prices. Studies have shown that psychological factors influence trading behavior to a great extent in the UAE market (Akbar, 2023). This complexity shows that investor behavior and other macroeconomic factors contribute to the stock price dynamics. The emergence of innovative data-driven methods has further transformed the stock price analysis. There have been multiple studies on the demonstrative approaches on how many variables can be modelled together to predict the stock trends (Ihlayyel et al, 2018). The shift towards computational analysis is also rising in the UAE economy, where more complex models are being adopted by investors to make reformed and data-driven decisions.

2. Theoretical background

To make reformed investment strategies, understanding the factors that drive stock prices is essential. The literature review explores the aspects chosen for this study, including Price-Earnings Ratio (PER), Dividend Per Share (DPS), corporate governance aspects (board size), and company size and its leverage impact predominantly on the UAE and GCC markets. The analysis examines three theoretical models such as the agency theory, the resource dependency theory, and the behavioral finance theory.

2.1 Theoretical foundation

Valuation theories provide a framework for understanding how stock prices are assessed and determined in financial markets. The Dividend Discount Model (DDM) is one of the most prominent models as it calculates the stock prices based on the present value of the expected dividends in the future (Su and Liu, 2012). Valuation models highlight DPS as a key indicator of the stock value. Similarly, PER generally signals that the investor anticipates future earnings growth that justifies a higher stock price (Aloui and Jarbouni, 2018). The Ohlson Model incorporates corporate governance factors, which strongly affect a firm's financial performance as well as stock valuation (Su and Liu, 2012). Agency theory helps to explain how corporate governance affects stock prices. It is alleged that the relationship between shareholders and managers can create agency conflict that may have a negative impact on the company's performance and, thus, its stock value (Jensen and Meckling, 1976). Reforming the board structure can improve the alignment of management incentives with shareholder interests. Strong corporate governance can mitigate problems related to control and enhance investor confidence, thus leading to a positive impact on a stock price (Hunjra et al, 2020; Paragina and Leon, 2020). Other empirical studies support the theory from a different perspective, showing that corporate governance can reduce risk, stock price volatility, and improve firm value. Effective corporate governance frameworks minimize the information asymmetry and, hence, the misunderstandings, making the firm more attractive for investors. Firms with well-developed, strong governance (Paragina and Leon, 2020), effective decision-making, and timely financial disclosures tend to demonstrate better overall performance. Such transparency is positively associated with stock performance. Other studies show that shareholder control is an effective mechanism for managing risk and can influence on stock price crash-rebounding (Han and Hang, 2024). Another analysis by Poudel et. al. (2024) found that the corporate governance had a positive effect on stock prices in the Nepalese commercial banks, thus demonstrating the role of transparent and accountable corporate governance in enhancing market capitalization. The second theoretical foundation mentioned in this study is the resource dependence perspective, which emphasizes the success of the company depending on critical resources

management through external networks. Mulyono et al, (2018) suggested that corporate boards play a crucial role in providing resources and offering strategic guidance to firms. Large boards with varied backgrounds and expertise often make more effective decisions, helping organizations anticipate market changes and engage in strategic planning. Robust governance ensures that businesses can better manage market volatility, improve financial performance, and support stock price stability.

Another study showed that firms with weak governance experience operational inefficiencies, which can contribute to declines in stock valuation. During challenging economic periods, such as the pandemic, investor decisions may be driven more by sentiment than by rational analysis, often reflecting a short-term focus on value. Behavioral finance provides insights into the psychological factors influencing stock prices. Kim et al, (2015) showed that well-governed firms can foster positive investor sentiment during a crisis. Further research indicated that the investor behaviour is often not fully rational and tends to reflect perceptions of the corporate governance quality, which is closely linked to market responses (Lee, 2016). This interaction illustrates how investor behavior is shaped and influenced by the fundamentals of the firm and its stock. Studies suggest that investor fears can trigger rapid market liquidation, potentially exacerbating value declines. Behavioral finance also shows that while investors consider financial analysis, their decisions are often influenced by events such as earnings announcements or economic forecasts that affect their sentiment. This highlights the relationship between psychological factors and corporate governance, which can reduce emotional overreactions of investors in times of financial turbulence.

2.2 Financial ratios

The Price-Earnings Ratio (PER) is a broadly used indicator to assess stock values. Empirical studies found that there is a positive relationship between PER and stock prices, higher PER generally reflecting a higher stock price and greater investor confidence (Sunaryo, 2022). The literature suggests that adjustments to the PER can lead to variations in stock valuation, indicating the importance investors place on earnings in the market pricing process (Ariesa et al, 2020). However, the impact of the PER does vary with a company's size, highlighting market dynamics. Another key valuation metric is the Dividend Per Share (DPS).

Studies examining the correlation between DPS and stock prices indicate that firms that maintain or increase their dividends tend to report increased stock prices. It is consistent with the traditional dividend signalling theory, which proposes that dividend payments signal a firm’s confidence in maintaining robust financial performance (Aram, 2022; Sari et al, 2019). In addition, the contemporary perspective has stressed the fact that the DPS is not only a short-term financial return to shareholders but is also an indicator of longer-term financial health. High dividend payments attract long-term investors and are associated with more stable, and in some cases rising stock prices over time (Eviana and Indarti, 2022). This reflects an important implication of agency theory, wherein dividend policy functions as a governance mechanism to manage shareholder expectations (Pamungkas et al, 2024).

3. Literature review and hypotheses

The literature indicates a strong relationship between the quality of corporate governance practices and stock price volatility, suggesting that governance characteristics can either stabilize or destabilize market valuations (Andreou et al, 2016). Governance mechanisms such as board size and board independence have been shown to correlate with stronger stock market performance, indicating that effective governance can enhance the competitive position of companies rather than merely reduce risk (Choi et al, 2016; Plíhal, 2016). This is attributed that the diverse board expertise improves risk management

competencies and supports improved stock performance (Almutairi and Quttainah, 2019; Garg and Gupta, 2023). Across various theoretical frameworks, firm size serves as a significant moderating factor for certain theories. Greater stock price stability can be attributed to a firm's established market presence and strong reputation (Nur et al, 2022). This relationship can be reinforced by the interaction between board size and company size. Larger firms are reported to leverage economies of scale, providing them with a competitive advantage over smaller companies (Mulyono et al, 2018). According to resource dependence theory, larger firms can capitalize on extensive networks, granting access to a diverse range of resources and improving their strategic expertise. These factors contribute to stock price stability and enhance a firm's attractiveness to investors. Additionally, a firm-specific variable, such as company age, can also affect stock performance. From the perspective of market value drivers, investors often perceive older firms as more reliable and resilient due to their established reputation. Research indicates that older firms possess greater market credibility and operational robustness, often translating into higher stock valuations compared to younger or less stable companies. These effects are amplified during unexpected events, such as the COVID-19 pandemic, as investors tend to favor established firms (Rani et al, 2013; Choi et al, 2016). Enhanced stock price performance is often observed for such firms during periods of market turbulence; the studies also show that their stock price stability is stronger during unpredictable events (Christian et al, 2020).

Another moderating factor chosen for this study is the leverage, which refers to the extent to which a firm uses debt financing. Cai and Zhang (2011) explain that higher leverage can lead to poor investment choices since it indicates that the company is struggling with debt and it exceeds the company's assets. This suggests that leverage has a negative link to stock returns; for example, one of their studies shows how companies with lower leverage made greater profits. Additionally, ownership concentration and capital structure also affect the stock price. Firms with concentrated ownership choose higher debt-to-capital ratios to solve agency problems that lead to better stock performance since there is an improved managerial discipline. However, leverage reduces the cost of capital through tax benefits, but larger debt raises the risk of bankruptcy, which results in lower stock appeal and performance.

3.1 Price-Earnings Ratio

The price-earnings ratio (PER) measures a stock's price in relation to its earnings. Numerous studies have shown a considerable and positive relationship between PER and stock prices. Similarly, Poudel et al (2024) find that a high PER shows the investor confidence in the firm's prospects and future growth and development. This confidence drives higher stock prices, rationalizing investments based on the premise that anticipated earnings growth should result in rising stock prices. Supporting this claim, the research by Fama and French (1995) provided empirical evidence that PER serves as a reliable long-term predictor of stock returns across a range of market conditions. According to Fama and French (1995), stocks with a higher PERs outperform less optimistic stocks over the long term, further strengthening the common assumption that strong market confidence supports higher stock prices. Additionally, Lee et al, (2016), in the cross-sectional study across multiple industries, showed that in a stable market environment, firms with relatively high PER experience significant increases in share prices. The effect is explained by investors' expectations of future cash flows, supporting the idea that PER can be used as an analytical tool to guide stock price movements.

The evidence overwhelmingly substantiates the hypothesis asserting a significantly positive relationship between Price-Earnings Ratios and stock prices.

H1. There is a significantly positive relationship between Price-Earnings Ratio and the Stock Price.

3.2 Dividends per share

Dividends are widely recognized as a key indicator of a firms' financial health and performance, positioning Dividend Per Share (DPS) as an essential metric in financial studies. Extensive academic literature has documented a positive relationship between DPS and stock prices. Lintner (1956) suggested that companies that consistently pay dividends are perceived as more reliable by investors, often exhibiting relatively stronger stock valuations. Empirical studies have further reinforced this relationship. Grullon and Michaely (2002) demonstrated that stock prices tend to appreciate in response to dividend announcements, with markets responding favorably to variations in DPS, highlighting a significant link between dividend policy and stock price behavior.

They suggest that investors generally respond positively to dividends, which signal earnings, reinforcing the relationship between earnings announcements and stock price performance. Recent evidence from Bessler and Wolff (2020) in emerging markets corroborates these findings, demonstrating a positive correlation between higher DPS and stock prices, reflecting a significant influence of dividend policies on investor decision-making. Therefore, the literature provides compelling evidence supporting our hypothesis of a significant positive relationship between DPS and stock prices, establishing dividends as a key determinant of equity valuation.

H2. There is a significantly positive relationship between Dividend Per Share and the Stock Price.

3.3 Board size

Board composition and size are widely recognized as critical determinants of a firm's performance and have received considerable attention in corporate governance literature. Empirical evidence generally suggests a positive association between board size and stock prices. Yermack (1996) reported that smaller boards often outperform larger ones due to more efficient and agile decision-making processes. In contrast, Bhojraj and Sengupta (2003) argued that boards of an optimal size benefit from diverse perspectives, enhancing overall firm performance.

In their empirical study, Bhagat and Bolton (2008) found that larger boards can positively influence stock price performance, particularly in industries where diverse expertise mitigates risk and generates favorable outcomes. This perspective is further supported by Rahman et al, (2022), who highlighted that enhanced corporate oversight and strategic innovation associated with larger boards contribute to higher stock valuation. In general, the existing literature indicates that larger board size positively influences stock prices, and consequently, shows that the governance mechanisms drive corporate financial performance.

H3. There is a significantly positive relationship between Board Size and the Stock Price.

3.4 Price-Earnings ratio and stock price

The link between company size and PER in relation to stock price growth has become an important focus in financial research. Larger companies often benefit from economies of scale, stronger brand recognition, and greater market power, which can strengthen the positive relationship between PER and stock price. Huang et al, (2008) demonstrated that large-cap firms exhibit a stronger and more stable relationship between PER and stock prices, likely due to higher investor confidence and lower perceived risk compared to smaller firms. Baker et al, (2006) further indicated that large firms attract greater institutional investment, resulting in higher liquidity and reduced stock price volatility in response to PER fluctuations. This suggests that investors place greater importance on PER and stock prices. Empirical evidence supports this view, showing that the impact of PER on stock prices is stronger in larger companies.

H4. The relationship between Price-Earnings Ratio and the stock price is positively moderated by the size of the company.

3.5 Leverage

When a firm uses debt to finance its operations, it is said to be using leverage, which significantly affects stock price performance and investor perception. Leverage also moderates the relationship between PER and stock prices. Prior studies suggested that higher leverage can weaken the positive relationship between PER and stock prices. Kim and McConnel (1977) also found that highly leveraged companies carry greater perceived risk, leading investors to react negatively to the changes in PER. Frank and Goyal (2009) also showed that firms with high leverage tend to lose the confidence of investors. While PER remains informative, the valuations of such firms are generally lower due to reduced investor trust. Additionally, Almazan et al, (2004) found that investors in asset-intensive industries adjust their expected returns, which can weaken the relationship between PER and stock prices. Excessive debt increases the risk of stock price volatility. Despite the limitations in prior research, the evidence indicates that high leverage moderates the link between PERs and stock prices, explaining why highly leveraged firms often show a weaker PER and stock price relationship.

H5. The relationship between Price-Earnings Ratio and the stock price is negatively moderated by the leverage of the company.

4. Research gap

Global financial studies have paid much attention to the relations among the factors that influence stock prices. Nonetheless, few studies have systematically studied these elements in the context of the UAE and GCC markets. Consequently, this review highlights the key gaps that remain unaddressed in the existing literature. This applies to corporate governance, financial performance, and the market dynamics shaped by regional contexts. However, regional studies on both PER and DPS have produced findings that are not fully consistent with the global evidence, reflecting the varying influences on stock prices across different markets. Nugraha and Artini's (2022) showed that financial performance affects stock prices in the automotive sub-sector, but this effect does not appear in the UAE or GCC markets. Likewise, Sabir et al, (2016) noted that traditional models ignore key components that drive stock price volatility in non-financial industries. They emphasized the importance of developing market-specific models, which can better explain stock price behavior in the UAE and GCC regions. This indicates that there is a need for specific studies that could evaluate how PER and DPS relate to the investor sentiment against the effects of the regional economic factors.

Furthermore, the impact of corporate governance structures has been under-researched in the UAE, especially the board size. While multiple studies demonstrate that larger boards improve firm performance, the complications do vary from one economic context to another. This difference cannot be directly applied to the UAE or GCC since cultural and economic dynamics differ and influence the governance practices. A study by Musa (2020) highlights the complexity of corporate structure but stresses the need for more research in the UAE. The current research shows that larger firms have steadier prices, but the nature within smaller firms operating in a rapidly developing economy, such as that of the UAE, is underexplored. Sukiro and Prsetyo (2023) have explored the response of firm size to market performance in 2023, but have not explored it in regard to local applications. Although evidence suggests that external factors like the economic and political risks significantly influence the stock price determination, studies still need to focus on regional economic factors, focusing on oil process and political dynamics (Sar and Panigrahi, 2025; Medyawati and Yunanto, 2020). Another prominent gap this research addresses is the implications of these variables in the GCC post-pandemic, which has still not been explored.

Limited studies have focused on the investor sentiments during economic crises and how their decision-making affects stock performance in the region. The unique market reactions during the pandemic highlight the need for more research to understand the complex nature of these factors and their impact in the UAE (Akbar, 2023).

5. Methodology

The study adopts a census approach, analysing all 15 companies listed in the FADX15 index, considering that the FADX15 comprises a determined set of 15 companies that represent the most liquid and economically significant companies in the UAE market. Although the number of observations is limited to 15, this reflects the full set of index constituents. Therefore, findings apply to this segment of the market. Financial data of the given companies were collected from a reliable financial database, known as FactSet, for the period 2019-2024. The information about the board size was collected from the respective annual reports of companies. The research will employ Ordinary Least Squares (OLS) regression implemented in Python.

The research model incorporates multiple variables that have been previously studied, and their substantial impact on the stock price was examined. The detailed description of the variables for this study can be found in Table 1. The descriptive analysis is applied to estimate the quality of the collected data, and the correlation analysis is used to examine relationships between dependent and independent variables. While these relationships between the determined dependent and independent variables were broadly investigated, the empirical analysis on the UAE market is limited.

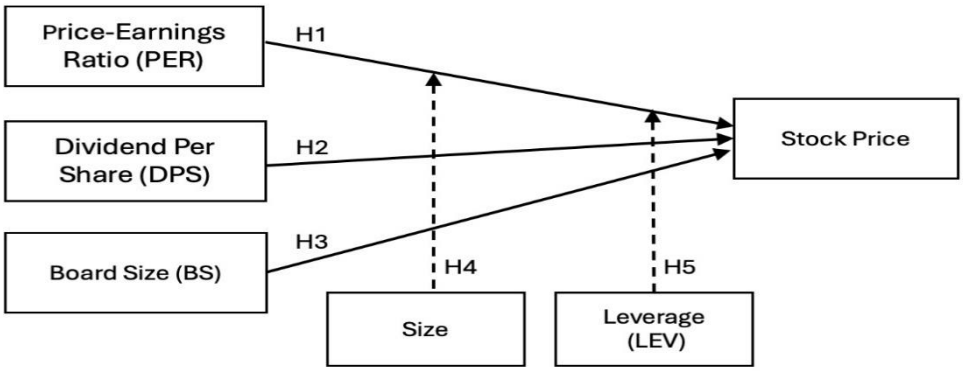
Table 1. Variables of the study

Variable	Abbreviation	Measurement
Stock Price	SP	End-of-year closing price per share
Price-Earnings Ratio	PER	Stock price divided by earnings per share
Dividend Per Share	DPS	Total dividends paid divided by the number of outstanding shares
Board Size	BS	Number of board members
Moderator Variable		
Price-Earnings Ratio × Company Size	PER × SIZE	Price-Earnings Ratio multiplied by the Market capitalization
Price-Earnings Ratio × Leverage	PER × LEV	Price-Earnings Ratio multiplied by Debt-to-Equity Ratio
Control Variables		
Age	AGE	Number of years since the company was incorporated
Covid-19	COVID	Dummy variable: years during the pandemic and years after the pandemic

Source: Authors' analysis

The study aims to examine the impact of financial factors and a selected corporate governance factor, such as board size, on the stock performance of the selected companies. The developed research model can be found in Figure 1. The selection of variables in this paper is based on their relevance in the literature and their importance in explaining stock price behaviour. The Stock Price (SP) is a dependent variable representing the market value of the firm. The independent variables, such as Price-Earnings Ratio (PER) and Dividend Per Share (DPS), are recognized financial metrics of the performance of the company and investor expectations. The Board Size (BS) represents a governance structure, which can have a substantial impact on strategic decision-making processes affecting the value of the firm. Moderator variables such as Price-Earnings Ratio × Company Size, and Price-Earnings Ratio× Leverage are included in the research model to examine the influence of the company size and its leverage on the relationship between Price-Earnings Ratio (PER) and Stock Price (SP). Finally, the selected control variables, such as company age (AGE) and COVID-19 dummy variable (COVID), are included to capture the effect of firm maturity and external economic shocks that may have an impact on stock performance.

Figure 1. Conceptual framework



Source: Authors reserach

The hypotheses listed above are tested with the application of the multiple regression model represented by the equation:

$$SP = \beta_0 + \beta_1 PER + \beta_2 DPS + \beta_3 BS + \beta_4 PER \times SIZE + \beta_5 PER \times LEV + \beta_6 AGE + \beta_7 COVID + \varepsilon,$$

where:

β_0=intercept; $\beta_1 - \beta_6$=coefficients of explanatory variables.

SP= Stock Price. PER= Price-Earnings Ratio of the company.

DPS= Dividend Per Share of the company. BS= Board Size of the company.

$PER \times SIZE$= moderator variable. Price-Earnings Ratio multiplied by the Market capitalization.

$PER \times LEV$= moderator variable; Price-Earnings Ratio multiplied by Debt-to-Equity Ratio.

AGE=Age of the company; $COVID$=COVID-19 factor; ε=The error term

5. Results

5.1. Descriptive statistics

Table 2 displays the descriptive statistics for the variables used in this research. The stock price varies from 0.00 to 410.00, with a mean of 22.36 and a large standard deviation of 73.52. Price-Earnings Ratio (PER) has a mean of 14.54 and a standard deviation of 16.70 with a range from 0.00 to 105.30. This variable shows a high variation in PER across 15 significant companies in the UAE. Besides, the Dividend Per Share (DPS) of the major UAE companies shows a mean value of 0.22 and a standard deviation value of 0.28, and a range from 0.00 to 0.83. The Board Size (BS) of the company demonstrates a large variation in the number of board members of the studied companies, with a mean of 5.83. PER×SIZE and PER×LEV, are 2753608.00 and 9.96, respectively, with corresponding standard deviation values of 8376760.20 and 12.74. There is a considerable variation in company age (AGE) from 1.00 to 52.00. The COVID-19 variable (COVID) has a mean of 0.67 and a standard deviation of 0.47.

Table 2. Descriptive statistics

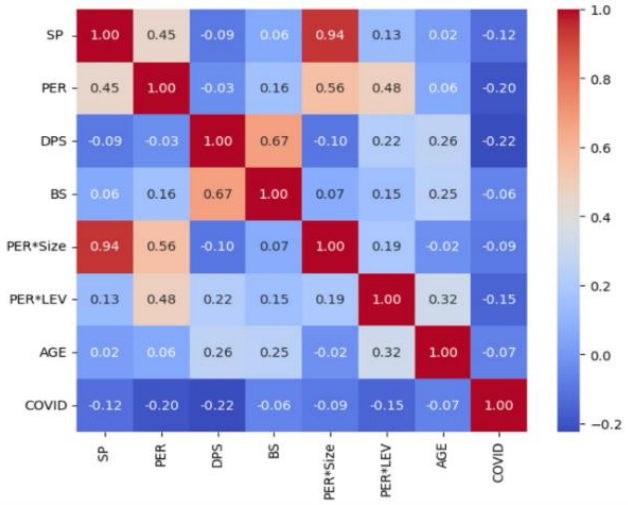
Variables	Mean	Std. Dev	Min	Max
SP	22.36	73.52	0.00	410.00
PER	14.54	16.70	0.00	105.30
DPS	0.22	0.28	0.00	0.83
BS	5.83	4.09	1.00	12
Moderator Variable				
PER× SIZE	2753608.00	8376760.20	0.00	54176904.24
PER× LEV	9.96	12.74	0.00	62.18
Control Variables				
AGE	24.71	18.85	1.00	52.00
COVID	0.67	0.47	0.00	1.00

Source: Python generated

5.2. Correlation analysis

The findings of Pearson's correlation analysis are shown in Figure 2. There is a moderate positive correlation between a stock price and the Price-Earnings Ratio (PER) of the examined companies. In addition, there is a very strong positive correlation between the equity price and the moderator variable PER×SIZE. Besides, a positive weak correlation can be identified between the stock price and the following variables: board size (BS), age (AGE) of the company, and PER×LEV. In contrast, a weak negative correlation was detected between the stock price and the Dividend Per Share (DPS), as well as between the stock price and the COVID-19 factor (COVID).

Figure 2. Correlation Matrix Heatmap



Source: Python generated

5.3. Hypothesis testing

According to the results listed in Table 3, it can be reported that the examined multiple regression has a statistically significant value *F*-statistic (*F*-statistic=102.3) with Prob *(F*-statistic*)* equals 8.37e-38 (*p*-value<0.05). The constructed model reveals the R-square (R^2) of 0.897, showing that observed variables explain 89.7% of the variation of the stock price. Most of the variables in the research model show low to acceptable values of the Variance Inflation Factor (VIF).

The regression results reject the first hypothesis, the coefficient of PER is -0.5317 (*p*-value=0.020), which is statistically significant but negative. The research outcomes failed to support the second hypothesis, as Dividend Per Share (DPS) shows a statistically insignificant relationship with the stock price (*p*-value=0.685). The Board Size (BS) is not statistically significant (*p*-value=0.837).

Therefore, the third hypothesis is also rejected. The moderating effect of leverage on the PER and the stock price relationship is not significant. (*p*-value=0.475). Consequently, the fifth hypothesis is rejected. The regression results support the fourth hypothesis. The moderator variable PER×Size shows a very small but significant positive coefficient 8.827e-06 (*p*-value=0.000). Therefore, the firm size strengthens the relationship between PER and the stock price.

Moreover, the regression results related to the age of the company (AGE) has an insignificant impact (*p*-value=0.139). Although the coefficient is positive, its effect is not statistically significant; therefore, we cannot conclude that the company's age has a real impact on the stock price. The regression analysis outcomes related to the tested COVID-19 factor (COVID) demonstrate an insignificant effect (*p*-value=0.106) on the stock price.

To conclude, this research contributes to the understanding of which observed factors significantly affect stock prices among 15 companies listed in the FADX15 index. However, it is certainly necessary to conduct further research to improve the robustness of the listed findings. Besides, specific suggestions for the continued research are expected to be provided for the limitations identified in this study.

Table 3. OLS regression results

Variables	Coefficient	Standard Error	t-statistic	Probability	VIF
PER	-0.5317	0.223	-2.381	0.020	2.05
DPS	-5.7107	14.009	-0.408	0.685	2.27
BS	0.1898	0.921	0.206	0.837	2.10
PER×Size	8.827e-06	3.81e-07	23.196	0.000	1.50
PER×LEV	-0.1850	0.258	-0.718	0.475	1.59
AGE	0.2254	0.151	1.493	0.139	1.20
COVID	-9.5576	5.856	-1.632	0.106	1.14
Constant	8.5517	7.069	1.210	0.230	7.46
Model Summary	R^2	0.897	*F*-statistic	102.3	
	Adjusted R^2	0.888	Prob *(F*-statistic*)*	8.37e-38	
	Durbin-Watson stat	2.066	Mean VIF	2.41	

Source: Python generated

6. Discussion of main findings

The objective of this research is to examine the impact of important financial variables and a specific corporate governance attribute, such as board size, on the stock performance of 15 firms listed in the FADX15 index, which represents the most liquid and economically significant companies in the UAE market. The findings provide notable insights into the factors that influence stock prices within this segment of the market. There is some contradictory correlation of price-earnings ratio (PER) to stock prices in previous studies. Lyu (2023) suggested that stocks with low PER tend to deliver higher returns as they are undervalued, which implies an inverse relationship with stock price appreciation. Similarly, Arofatin et al, (2023) show that financial ratios influence stock prices, although the strength and direction of these effects vary across different contexts.

The study shows that firm size can strengthen the relationship between PER and stock price. Larger firms typically exhibit a stronger positive relationship between key financial indicators and stock price performance. The result also fits the strong correlation that we expected in the beginning and supports the idea that market capitalization plays an important role in investor valuation of financial metrics. The first, second, third, and fifth hypotheses were not supported by the conducted analysis. It was found that such examined factors as PER ($\beta = -0.5317$, p=0.020), DPS (β =-5.7107, p=0.685), BS ($\beta = 0.1898$, p=0.837), a moderating variable PER×LEV (β =−0.1850, p=0.475) did not demonstrate the expected impact on the stock price. Our analysis indicated that PER has an insignificant influence on a stock price. The positive moderate correlation was found in the preliminary statistical analysis performed using Pearson's Correlation analysis. The leverage does not significantly influence the effect of the PER on the stock prices of these companies. This indicates that in the multiple regression model, after controlling for other variables, the observed effect of a higher PER may be overstated, adjusted by the market, or reflect specific characteristics of the UAE market, where high PERs can signal firms experiencing downward pressure on stock prices. Several studies prove that the price-earnings ratio (PER) has no significant impact on stock prices. For instance, Jamal (2020) claimed that PER has no impact on stock performance in the pharmaceutical industry (Jamal, 2020). Research by

Indrayono supports this argument by stating that PER has no correlation with stock prices in the different periods under examination in the Indonesian Stock Exchange (Indrayono, 2019). Additionally, Ali et al, (2022) found that although the earnings per share is influential on stock prices, PER has no meaningful relationship with stock price (Ali et al, 2022). These findings indicate a complex relationship between PER and stock prices, implying that the magnitude and direction of the effect may vary substantially across different market environments. Even a variation in dividend payments does not significantly affect the equity price of the companies in this sample. Although a larger board size might be associated with a marginally higher share price, in this research model, the size of the board does not provide a statistically significant signal for stock price, suggesting that the board size is less important for stock valuation than other qualitative aspects of governance or board effectiveness. Control variables such as company age (AGE) and COVID-19 (COVID) demonstrated statistically insignificant impact on stock prices.

Our results provide further evidence to support the fourth hypothesis on finding that the relationship between Price-Earnings Ratio (PER) and stock price is moderated by the size of the company (β =8.827e-06, p=0.000). This is a fundamental result that indicates that the negative relationship between PER and the stock price is attenuated for larger firms. This indicates that large-cap firms can be seen as more stable and less vulnerable to the downside consequences of a high PER than small-cap companies. These companies could be further studied using qualitative methods to better understand this relationship. Data from the examined group of companies showed that PER, when moderated by company size and stock price, strongly correlated. For instance, Nur et al, demonstrated that larger companies outperform smaller firms because of total asset superiority by improving performance and enhancing investor confidence. As another example of this, Faturohman et al, (2024) found that firm size directly impacts stock prices and simultaneously affects liquidity and profitability, suggesting a complex effect (Faturohman et al, 2024).

7. Conclusion

This research investigates the impact of financial factors and a corporate governance attribute on stock price. The paper focuses on 15 companies listed in the FADX15 index and finds that Price-Earnings Ratio (PER) moderated by the company size has a notable impact on stock price. However, the remaining variables, examined in this study, did not show a statistically significant impact on stock price performance. This research has several important implications in conclusions.

The findings have practical implications. In terms of corporate governance and policy, the study suggests that companies need to carefully calibrate the board size and dividend policy. The board composition can potentially improve decision-making and oversight, helping to create a stable and transparent dividend policy that fosters investor trust. For investors, the results offer practical guidance for estimating stock prices by considering financial indicators, corporate governance practices, and external events in the UAE. For regulators and policymakers, the research highlights the necessity of strengthening corporate governance standards to promote transparency and reinforce organizational resilience, especially during periods of market volatility. Theoretically, the paper developed a model combining financial indicators, corporate governance attributes, and the effect of external events; the constructed model can be broadly implemented or further enhanced by other researchers.

Despite the described findings, the paper acknowledges several limitations that may lead to future investigations. Firstly, the limitation of this research is the missing data for certain years. To address this, missing values were assumed to be identical to those of the most recent year. This assumption may introduce bias and should be considered when interpreting the obtained findings of this research. Secondly, the study aims to examine

only companies included in the FADX15 index, so future research should be based on the companies of the Dubai Financial Market (DFM) and Abu Dhabi Securities Exchange (ADX). Besides, the further investigations can be expanded beyond the UAE, covering the GCC and MENA regions. Finally, the important limitation of this study is that it does not consider the full range of variables that can affect stock prices, such as macroeconomic factors and investor sentiments.

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