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The Effect of Return on Equity, Earnings per Share, and Price Earnings Ratio on Stock Prices in the Insurance Sector of Pakistan (2019-2023)

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Abstract

Background: This paper investigates the impact of three major financial metrics i.e. Return on Equity (ROE), Earnings per Share (EPS), and Price-to-Earnings Ratio (PER) on stock prices in Pakistan's insurance sector. The objectives of this study is to examine whether these financial indicators significantly influence market valuation and to provide empirical evidence from an emerging economy context.

Methods: A quantitative research design was adopted, using panel data from 15 insurance companies listed on the Pakistan Stock Exchange (PSX) from 2019 to 2023. Secondary data were obtained from annual reports, the PSX database, and the State Bank of Pakistan. Panel least squares regression was employed in EViews software to test the relationships between stock prices (dependent variable) and the financial indicators (independent variables).

Results: The results show that all three financial ratios—ROE, EPS, and PER—have a statistically significant and positive impact on stock prices. EPS exerts the most decisive influence, followed by PER and ROE. The regression model demonstrates high explanatory power (R^2 = 0.871), confirming that firm-level profitability and valuation ratios are key determinants of stock price movements in Pakistan's insurance sector.

Conclusion: This study contributes to the limited literature on emerging markets by providing robust evidence from Pakistan's under-researched insurance sector. The findings offer practical insights for investors, policymakers, and corporate managers, emphasizing the importance of financial performance indicators in investment decision-making and stock market efficiency.

Keywords: Earnings per Share, Insurance Sector, Pakistan, Price-to-Earnings Ratio, Return on Equity, Stock Prices.

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1. INTRODUCTION

The capital market constitutes a fundamental pillar of modern economies, as a critical mechanism for channeling funds from surplus units (investors) to deficit units (firms needing capital) (Mohamad Shafi & Tan, 2023). By bridging this gap, capital markets provide opportunities for businesses to finance their expansion and enable investors to participate in wealth creation through ownership of public assets (Davidescu et al., 2022). In this way, capital markets foster sustainable economic growth, enhance financial intermediation, and support overall macroeconomic development. Furthermore, well-functioning capital markets strengthen investor confidence by offering transparency, liquidity, and a platform for effective price discovery (Deuskar & Johnson, 2021).

In the context of finance, the insurance sector plays a vital role and has broader impact. Apart from providing risk coverage, it also contributes towards the stabilization of economy through mobilizing the resources, controlling financial shocks, and boosting long term investment plans (Hsiao & Shiu, 2023). Meanwhile in Pakistan, the insurance company is still under developing despite of its importance. Before market liberalization in 1992, when private sector entrants like EFU Life Assurance started much-needed competition, the State Life Insurance Corporation (SLIC) had held a monopoly for decades (Bajpai & Mazhar, 2022). The industry has gradually diversified since then, although penetration is still low at about 0.9% of GDP, below the global average of about 7%. This disparity demonstrates the substantial unrealized potential of the insurance business in Pakistan.

The sector is currently led by EFU Life Assurance, Adamjee Insurance, Jubilee Life Insurance, and Pakistan Reinsurance (PRCL), with 29 insurance companies publicly listed on the Pakistan Stock Exchange (PSX) (Batada, 2022). By absorbing risks and safeguarding financial assets, these companies strengthen financial stability and give shareholders steady profits and dependable dividends. Both local and foreign investors are becoming more interested in the industry due to its expanding significance, especially since its success is directly related to more general measures of capital market development and economic resilience.

A key indicator of a company's market value is its stock price, which takes into account both the company's existing financial success and its anticipated future growth. Stock prices are a key factor in determining shareholder wealth and market trust in a company's financial stability, according to (Tandelilin, 2010). As a result, before investing money, investors take into account a number of macroeconomic variables (such as inflation, interest rates, and exchange rate volatility) as well as microeconomic indicators (such as profitability, solvency, and growth potential). Among the latter, financial ratios like price-to-earnings ratio (PER), earnings per share (EPS), and return on equity (ROE) are well known as crucial indicators for assessing operational effectiveness, profitability, and market expectations (Subhani et al., 2022).

ROE measures a firm's ability to generate income from shareholders' Equity, indicating managerial effectiveness and capital utilization (Saputra, 2022). EPS reflects the net profit allocated to each outstanding Share, directly linking corporate profitability with shareholder value (Rahmawati & Hadian, 2022). On the other hand, PER captures the relationship between a firm's stock price and earnings, offering insights into market sentiment and expectations

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regarding future growth (Maulidina et al., 2021). Collectively, these indicators serve as essential tools for understanding stock price behavior and guiding investor decisions. Although a large body of international literature has examined the relationship between these financial indicators and stock prices, empirical findings remain inconsistent and often context-dependent. Some studies demonstrate strong positive associations, while others suggest weak or insignificant effects (Andriani et al., 2023). Moreover, most existing research has been conducted in developed markets, where institutional frameworks, investor behavior, and market dynamics differ substantially from those in emerging economies such as Pakistan. Consequently, there is a pressing need for country-specific investigations to understand whether and how these financial metrics shape stock price movements in Pakistan's insurance sector.

Against this backdrop, the present study seeks to empirically analyze the effect of ROE, EPS, and PER on the stock prices of insurance companies listed on the PSX from 2019 to 2023. This research fills an essential gap in the literature by examining these relationships in a sector that is both economically significant and underexplored. The findings are expected to provide valuable insights for investors, regulators, and policymakers by highlighting the role of financial performance in shaping market valuation. In addition, this study offers practical implications for portfolio management, investment strategies, and the design of sector-specific regulatory frameworks, thereby contributing to the broader discourse on capital market efficiency and development in emerging economies.

2. LITERATURE REVIEW

2.1 Stock Price

Stock prices are one of the most noticeable and closely watched signs of a company's market value and how well it's performing financially. In capital markets, they show what the general agreement is about a company based on its current earnings, future growth potential, and what investors think. According to Sartono (2010), share prices are formed based on the principle of supply and demand: when more investors want to buy a stock than are selling it, the price goes up, but if there's more selling than buying, the price goes down (Pratiwi et al., 2022). However, this simple idea doesn't fully explain the complexity of share price movements, which are affected not only by market forces but also by various factors related to the company itself, the performance of its industry, and overall economic conditions (Yadav et al., 2022).

In financial literature, stock prices are often considered a corporate health barometer, which reflects both the current financial strength and the potential for future income. They are also a key determinant of the wealth of shareholders and an important reference point to evaluate the efficiency of financial markets. Numerous studies have tried to identify the variables that explain fluctuations in shares prices, with economic performance indicators such as the return of equity (ROE), earnings per share (EPS) and the price-great price ratio (by) that receive particular attention. Although some academics constantly find a strong link between these indicators and the prices of shares, others highlight inconsistent or weak relationships, which suggests that the context of the industry, the economic environment and the behavior of investors significantly influence the results.

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For example, while studying seven processed food companies between 2016 and 2020, Fatonah et al. (2024) found that ROE, EPS, and PER collectively had a positive and statistically significant impact on stock prices. Similar findings were reported by Rahmania, Anwar and LIA (2019) in their study of 14 food and beverage firms, where several regression analysis confirmed the collective impact of these financial ratios on stock price movements Ammy and Azizah (2021), focusing on 11 food and beverage firms, EPS and Roe were also found to be important determinants, while emerged as a moderate variable per per, which increases the relationship between profitability and market evaluation.

Conversely, other studies present conflicting evidence. Wibowo (2022), analyzing 23 Indonesian banking companies from 2018 to 2020, reported that ROE and EPS exerted no significant influence on stock prices in the banking sector, suggesting that other factors, such as regulatory changes, liquidity, and risk exposure, may play a stronger role. In contrast, Hongkong (2017) found that EPS and ROE partially and significantly influenced stock prices in the same sector. Likewise, (Lusiana, 2020) concluded that ROE positively and significantly affected stock prices in construction firms, while EPS had little impact on the food and beverage sector. (Agrawal & Bansal, 2021) and (Gharaibeh et al., 2022) supported the role of EPS and PER in influencing stock returns, yet they found ROE's effect inconclusive. Veronica and Sari (2024), examining Indonesian banks during 2018–2020, even identified ROE as having a negative and insignificant impact on share prices, while EPS remained consistently positive and significant.

These studies demonstrate that while financial ratios are central to stock price determination, their influence varies across industries, market conditions, and institutional settings. This highlights the importance of conducting country- and sector-specific research, particularly in emerging economies such as Pakistan, where market structures and investor behavior differ from those in developed economies.

2.2 Return on Equity (ROE)

ROE is one of the most frequently employed measures of financial performance, representing a firm's ability to generate profit from shareholders' Equity. It reflects managerial efficiency, effective use of resources, and overall profitability from the perspective of equity holders (Shabrina & Hadian, 2021). A higher ROE is generally interpreted as a signal of strong financial performance, which can attract more investors and increase stock prices. Despite its theoretical importance, empirical findings on the relationship between ROE and stock prices are inconclusive.(Fakhroni & Fitraratri, 2022), (Saputra, 2022), (Veronica & Sari, 2024), (Harahap et al., 2021), and Hertinaa and Saudi (2019) reported no significant relationship between ROE and stock price fluctuations, suggesting that investors may discount ROE when assessing firm value in specific contexts. In contrast, (Lusiana, 2020) found a positive and significant relationship, indicating that firms with higher ROE were likelier to experience stock price appreciation. Similarly, Anwar and LIA (2019) identified ROE as a key predictor of future stock price movements in food and beverage companies.

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These discrepancies suggest that the role of ROE is context-dependent. ROE may strongly predict stock prices in industries where retained earnings are critical for reinvestment and growth. However, in sectors such as banking, where leverage and regulatory factors dominate, ROE's explanatory power may be weaker. Moreover, in emerging markets, structural inefficiencies and investor biases can dilute the impact of ROE on stock price behavior.

2.3 Earnings Per Share (EPS)

EPS is another cornerstone financial metric, reflecting the portion of net income attributable to each outstanding Share. It is considered a direct measure of shareholder value creation and is widely used by investors as a proxy for profitability and earnings quality (Kasmir, 2010; Hery, 2019). Since EPS directly links company performance with shareholder returns, it is often assumed to have a strong positive association with stock prices.

The empirical evidence primarily supports this assumption.(Fakhroni & Fitraratri, 2022), (Safitri et al., 2020) and (Hertina & Saudi, 2019) all confirmed that EPS exerts a positive and statistically significant influence on stock prices. EPS is often interpreted as a strong predictor of stock price movement, particularly in industries where earnings stability is critical. Dr. (Kumar, 2017) further emphasized EPS as one of the most reliable forecasters of stock market performance across the automotive sector. Nevertheless, not all evidence is consistent. For instance, (Lusiana, 2020) and (Rahmawati & Hadian, 2022) reported no significant effect of EPS on food and beverage companies, highlighting that its predictive power may be limited in industries characterized by high volatility or where investors priorities other indicators. This suggests that while EPS is generally a robust predictor of stock prices, its influence may be moderated by sector-specific dynamics and market sentiment.

2.4 Price-to-Earnings Ratio (PER)

Price to Earnings ratios serve to rank firms by strong firms tend to garner elevated multiples. The price-earnings ratio (PER) is one of the simplest interpretations of multiples, resting fundamentally on the quotient of market price per share to trailing or forecasted profits on the same basis. Because the ratio is implicit in equating price to capitalized future earnings, its level also expresses the market's discounting of projected profits, risks, and, by extension, persistence of those profits (Harahap et al., 2021; Mohamad Shafi & Tan, 2023). A ratio exceeding the rest of a market or a sector usually tells analysts that traders expect pronounced or permanent expansion of profits. Conversely a suppressed PER frequently coerces analysts to muse whether projected bantam growth or impending troubles, or both, are already discounted by the market.

Evidence on PER's explanatory power has produced divergent conclusions. (Saputra, 2022) largely observed the ratio having insignificant explanatory weight, implying that within the samples investor analysis was indifferent to PER and instead gravitated toward more complex or more esoteric ratios. (Fakhroni & Fitraratri, 2022) reached the conclusive findings that within at least one market a marked elevation of PER was systematically followed by reverse price corrections, suggesting that the ratio in those samples was delivering implicit warnings of a quantum that market capital would later withdraw. (Rahmawati & Hadian, 2022), however, countered that PER amplifies the links by which both earnings per share and return on equity interactively influence a firm's price. (Safitri et

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al., 2020) established a statistically robust connection, showing that firms registering elevated price-earnings ratios tend to witness upward movements in share prices as investors show increased appetite. Likewise, (Kumar, 2017) positioned PER as a pivotal variable in projecting automotive equities, reaffirming its relevance for practitioners building valuation frameworks.

The contrast in empirical outcomes indicates that PER's informativeness is modulated by psychological, sectorial, and macroeconomic filters. In well-developed capitals marked by rigorous disclosure and widespread analyst coverage, PER might function as a reliable leading variable. Conversely, in transitional environments like Pakistan—where market sentiment, sporadic information release, and structural frictions dominate—PER may lack stability and require supplementary fundamentals for robust analysis.

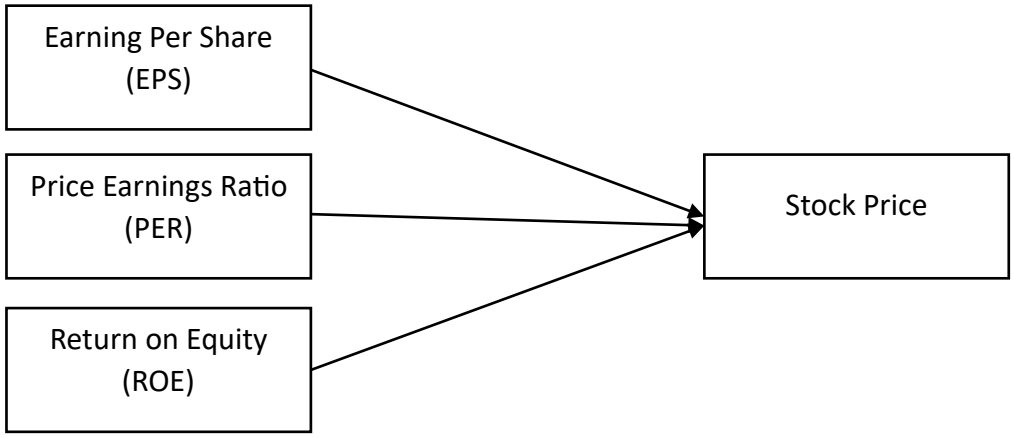

Figure 1
Proposed Framework

3. METHODOLOGY

3.1 Research Design

This study adopts a quantitative research design, as the objective is to test the relationship between financial performance indicators statistically—Return on Equity (ROE), Earnings per Share (EPS), and Price-to-Earnings Ratio (PER)—and stock prices of insurance companies listed on the Pakistan Stock Exchange (PSX). A quantitative design is suitable because it allows for hypothesis testing through statistical models, ensuring objectivity, reliability, and replicability of results.

The study employs panel data regression analysis. Panel data, which combines cross-sectional and time-series observations, is advantageous because it captures firm-specific heterogeneity and temporal dynamics, providing more robust and accurate estimates than purely cross-sectional or time-series data. The regression was conducted using the Least Squares Method (Panel Least Squares) via EViews software, based on a balanced panel dataset covering five years (2019–2023). This approach was selected because it enables the identification of systematic relationships between financial indicators and stock prices, while controlling for variations across firms and over time.

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3.2 Population and Sampling

The study population comprises 29 insurance companies listed on the Pakistan Stock Exchange (PSX). The purposive sampling technique was applied to select 15 companies from this population. Purposive sampling was chosen due to its suitability in contexts where the research requires firms with complete and consistent financial data across the entire study period. This ensures the reliability of the statistical analysis while minimizing the bias caused by missing data. The five years from 2019 to 2023 were selected to reflect the most recent performance trends in the insurance sector and to capture both pre-pandemic and post-pandemic dynamics, given the COVID-19 pandemic's significant impact on global financial markets.

3.3 Data Sources

The study relies exclusively on secondary data, collected from credible and publicly available sources:

- Annual reports and audited financial statements of the selected insurance companies.
- The Pakistan Stock Exchange (PSX) is the official database for stock price information.
- Publications and statistical data are from the State Bank of Pakistan (SBP).
- These sources were chosen because they provide standardized, reliable, and verifiable financial data essential for robust empirical research.

3.4 Variables and Measurement

Dependent Variable (Y):

Stock Price (SP): The closing share price of each selected company, obtained from PSX.

Independent Variables (X):

- **Return on Equity (ROE):** Net income divided by shareholders' Equity, indicating profitability relative to equity financing.
- **Earnings per Share (EPS**): Net income attributable to shareholders divided by the total number of outstanding shares, reflecting the profitability available to each Share.
- **Price-to-Earnings Ratio (PER):** Market price per Share divided by EPS, capturing investor expectations about future growth and profitability.
- These variables were selected based on their strong theoretical and empirical relevance in prior capital market studies. They are widely recognized as fundamental financial performance and valuation indicators, making them appropriate for analyzing their effect on stock price behavior in the insurance sector.

3.5 Analytical Technique

The study applies panel data regression analysis using the Least Squares Method (Panel Least Squares). Panel data methods offer advantages such as:

- Accounting for unobservable heterogeneity across firms.
- Reducing multicollinearity among explanatory variables.
- Providing more informative data points and higher degrees of freedom improves statistical efficiency.

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The regression model used in this study is expressed as:

$$SP_{it} = \propto + \beta_1 EPS_{it} + \beta_2 PER_{it} + \beta_1 ROE_{it} + \varepsilon_{it}$$

- $SP_{it} = Stock\ Price\ of\ firm\ i\ at\ time\ t$
- $EPS_{it} = Earning\ per\ Share\ of\ firm\ i\ at\ time\ t$
- $PER_{it} = Price\ to\ Earnings\ Ratio\ of\ firm\ i\ at\ time\ t$
- $ROE_{it} = Return\ on\ Equity\ of\ firm\ i\ at\ time\ t$

This model was chosen to examine the individual and simultaneous effects of the financial indicators on stock price performance in Pakistan's insurance sector.

3.6 Selected Companies for Study

The sample includes the following 15 insurance companies listed on the PSX:

- Askari General Insurance Company Limited
- IGI Holdings Limited
- Adamjee Insurance Company Limited
- Jubilee General Insurance Limited
- Atlas Insurance Limited
- Jubilee Life Insurance Company Limited
- Century Insurance Company Limited
- Pakistan Reinsurance Company Limited
- Crescent Star Insurance Limited
- Reliance Insurance Company Limited
- EFU General Insurance Limited
- Shaheen Insurance Company Limited
- EFU Life Assurance Limited
- The United Insurance Company
- Habib Insurance Company Limited

3.7 Hypotheses Development

Based on the theoretical framework and prior empirical evidence, the following hypotheses were formulated:

- H1: Earnings per Share (EPS) has a significant positive influence on stock prices.
- H2: Price-to-Earnings Ratio (PER) has a significant positive influence on stock prices.
- H3: Return on Equity (ROE) has a significant positive influence on stock prices.

These hypotheses reflect the assumption that financial performance ratios directly affect the valuation of insurance firms, consistent with prior capital market literature.

4. RESULTS

4.1 Unit Root Test

Before estimating the regression model, it is essential to examine the stationarity of the panel dataset, as non-stationary variables may produce spurious regression results and invalidate statistical inferences. Stationarity is the condition where a variable's statistical properties (mean, variance, and autocovariance) remain constant over time. If a series is non-stationary, its fluctuations are often driven by external shocks rather than underlying relationships, distorting regression outcomes.

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This study employed the Hadri Unit Root Test to assess the stationarity of the variables. This test is appropriate for panel data exhibiting both cross-sectional dependence and heteroscedasticity, standard features in financial datasets. Unlike some alternative unit root tests (e.g., Levin-Lin-Chu, Im-Pesaran-Shin), the Hadri test specifies stationarity as the null hypothesis and non-stationarity (unit root) as the alternative hypothesis.
Null Hypothesis (H_o): Panel data is stationary (no unit root).
Alternative Hypothesis (H_1): Panel data is non-stationary (has a unit root).

4.2 Test Results

The test was applied to the dependent variable, Stock Price (SP), using a balanced panel of 15 firms observed over five years (2019–2023), yielding 75 total observations. The results are summarized below:

Table 1. Newey–West automatic bandwidth selection with Bartlett kernel

Method	Statistic	Probability
Hadri Z-stat	8.28548	0.0000
Heteroscedastic Consistent Z-stat	7.03733	0.0000

4.3 Interpretation

Both the Hadri Z-statistic and the heteroscedastic-consistent Z-statistic produced p-values less than 0.05, leading to the rejection of the null hypothesis of stationarity. This result indicates that the stock price series and other financial indicators used in the study (ROE, EPS, and PER) exhibit non-stationary behavior over the sample period.

The non-stationarity of these financial variables is not unexpected. Stock prices and accounting-based ratios often reflect the influence of macroeconomic conditions, market sentiment, and cyclical corporate performance, making them time-dependent. Financial and economic variables frequently follow stochastic trends, and their non-stationarity is consistent with established findings in financial econometrics. Recognizing the presence of non-stationarity ensures that appropriate econometric techniques, such as panel regression with suitable transformations or adjustments, are applied in subsequent stages of the analysis to produce reliable and valid results.

4.4 Descriptive Statistics

Table 2. Descriptive Statistics

	SP	ROE	PER	EPS
Measure of Central Tendency				
Mean	63.23	12.95	7.22	7.72

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Median	25.05	13.52	5.99	5.18
Maximum	400	29.73	36.34	33.05
Minimum	1.56	1.27	1.8	0.25
Dispersion				
Std. Dev.	85.86	6.58	5.05	7.48
Normality				
Skewness	2.08	0.42	2.93	1.26
Kurtosis	7.47	2.62	16.13	4.01
Jarque-Bera	116.70	2.69	647.06	23.07
Probability	4.54	0.26	3.09	9.76
Summation				
Sum	4742.51	971.61	541.64	579.09
Sum Sq. Dev.	545613.80	3208.52	1893.30	4144.29
Observations	75	75	75	75

4.5 Measures of Central Tendency

The average stock price across the sample is 63.23, with a median of 25.05, indicating that the distribution is positively skewed due to the influence of some large stock prices (maximum = 400). ROE averages 12.95, with a median of 13.52, suggesting a relatively symmetric distribution with slight left skewness. PER and EPS average 7.22 and 7.72, respectively, with medians of 5.99 and 5.18, both lower than their means, indicating right-skewed distributions.

4.6 Measures of Dispersion

Stock prices show the highest variability with a standard deviation of 85.86, much larger than the mean, highlighting substantial fluctuations across firms. EPS also displays relatively high variability (7.48). By contrast, ROE (6.58) and PER (5.05) exhibit lower variability, suggesting that these indicators are more consistent across firms than stock prices and earnings.

4.7 Measures of Normality

Skewness values confirm that all variables are positively skewed: stock price (2.08), ROE (0.42), PER (2.93), and EPS (1.26). Kurtosis results show that stock price (7.47), PER (16.13), and EPS (4.01) exhibit leptokurtic distributions (peaked relative to the normal distribution), whereas ROE (2.62) is platykurtic (flatter distribution). The Jarque–Bera test further indicates non-normality for SP, PER, and EPS, with tremendous test values, while ROE's distribution is closer to normality.

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4.8 Goodness of Fit

The probability values (SP = 4.54, ROE = 0.26, PER = 3.09, EPS = 9.76) suggest that, although certain variables deviate from perfect normality, the data remain suitable for panel regression analysis due to the robustness of large-sample econometric estimators to non-normality.

4.9 Justification Of Variables

The selection of these variables in this research is primarily based on their critical relevance in analysing companies' financial and market performance within the insurance sector. The justification for each variable is grounded in its theoretical and practical importance. Below is the detailed description of these variables, their respective sources from prior literature and the rationale for their inclusion in this study.

Table 3. Justification of Variables

Study Variables	Literature Sources and Empirical Evidence	Justification
Stock Prices	(Anwar & LIA, 2019; Hertina & Saudi, 2019; Lusiana, 2020)	Represents the market valuation of a company.
Return on Equity	(Anwar & LIA, 2019; Deuskar & Johnson, 2021; Veronica & Sari, 2024)	Due to its significance as a key profitability measure is included in influencing investor perception and stock prices.
Earning Per Share	(Fatonah et al., 2024; Hsiao & Shiu, 2023; Maulidina et al., 2021)	It is included due to its significance as a profitability measure representing the portion of profit for each Share.
Price Earnings Ratio	(Harahap et al., 2021; Pratiwi et al., 2022; Shabrina & Hadian, 2021)	It is included as it reflects market expectations about future growth and profitability, influencing investors' investment decisions.

4.10 Regression Results

The study employed panel least squares regression analysis to estimate the impact of EPS, PER, and ROE on stock prices. The regression output is reported in the Table.

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Table 4. Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C (Constant)	-74.71204	10.17060	-7.345882	0.0000
Earnings per Share	8.030718	0.563977	14.23943	0.0000
Price-to-Earnings Ratio	7.264377	0.754236	9.631439	0.0000
Return on Equity	1.812074	0.635181	2.852847	0.0057

Table 5. R Square

Statistic	Value
R-squared	0.871282
Adjusted R-squared	0.865843
S.E. of regression	31.45094
Sum squared residuals	70230.47
F-statistic	160.1974
Prob(F-statistic)	0.000000
Durbin–Watson stat	0.703090

4.11 Interpretation

The estimated regression equation is:

$$SP = -74.71204 + 8.030718(EPS) + 7.264377(PER) + 1.812074(ROE) + \epsilon$$

- The constant term (-74.71) implies that if EPS, PER, and ROE were zero, the stock price would theoretically be negative, though this has no practical interpretation and serves as a statistical anchor.
- Earnings per Share (EPS) exerts the most potent positive effect on stock prices, with a coefficient of 8.03 ($p < 0.01$). This suggests that a one-unit increase in EPS increases the stock price by approximately eight units, holding other factors constant.
- Price-to-Earnings Ratio (PER) also shows a strong positive influence (coefficient = 7.26, $p < 0.01$), confirming that higher valuation multiples are associated with higher stock prices.
- Return on Equity (ROE) has a more minor but significant positive impact (coefficient = 1.81, $p < 0.01$), indicating that improved profitability relative to equity capital also raises stock prices.
- The overall model fit is strong, with an R-squared of 0.87, meaning that EPS, PER, and ROE explain 87% of the variation in stock prices. The F-statistic confirms that the model is highly significant ($p = 0.000$).

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These results collectively suggest that firm-level financial performance, particularly EPS and PER, is critical in explaining stock price movements in Pakistan's insurance sector.

5. DISCUSSION

The analysis shows that EPS, PER, and ROE positively and statistically significantly affect stock prices in Pakistan's listed life and non-life insurance segment from 2019 to 2023. The EPS coefficient is both the highest in magnitude and significance, followed by PER and ROE, underscoring that observed profitability per share is the primary determinant of investor valuation. The data thus enforce the central thematic view that the earnings-generating capacity and the credibility of such earnings, as conveyed through per-share arithmetic, anchor market prices in the domestic insurance segment.

The results corroborate recent literature. Fakhroni (2022), the twin studies by Baihaqi and Azizah (2021), and the work of Rahmalia et al. (2019) reached overlapping conclusions by finding EPS, PER and ROE exercised descriptive and predictive capacity over market prices, further reinforcing the argument that firm-level profitability metrics and pivot valuation ratios are entrenched price guides. Collectively, the consensus illustrates that local market participants assign significant weight to earnings indicators, thereby internalizing profitability-oriented signals as proxies for expected firm-wide risk and growth trajectories.

However, the results statistically contrast with previous studies including Wibowo (2022) and Veronica (2021), which reported weak or insignificant effects of ROE and PER in the banking sectors. This divergence may be attributed to industry-specific dynamics such as, while banks are heavily influenced by regulatory frameworks, interest rate policies, and macroeconomic stability, insurance companies rely more directly on profitability and risk management indicators that EPS and PER well capture.

The positive impact of PER in this study is particularly notable. While some literature (e.g., Saputra, 2022; Fakhroni, 2022) reported negligible or adverse effects of PER, the results suggest that Pakistani investors use PER as a key benchmark of market expectations. A higher PER signals investor optimism regarding future earnings growth in the insurance sector, leading to upward pressure on stock prices.

The findings underscore the importance of profitability and valuation ratios in explaining stock price movements in Pakistan's insurance sector. They also highlight that although widely studied in developed markets, financial ratios can exhibit context-specific behavior in emerging economies, where investor psychology, information asymmetry, and market efficiency differ significantly.

6. CONCLUSION

The outcomes of this study investigated the impact of EPS, PER, and ROE on stock prices in the Pakistani insurance sector over the period 2019–2023. Using panel least squares regression on data from 15 listed insurance

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companies, the study provides robust evidence that all three financial performance indicators significantly and positively influence stock prices.

The findings reveal that EPS is the strongest predictor of stock price movements, followed by PER and ROE. The high explanatory power of the model (R^2 = 87.12%) indicates that these three ratios capture much of the variation in stock prices within the sector. These evident findings confirm the theoretical argument that stock prices reflect firm value and are closely linked to profitability and investor expectations.

Moreover, this study contributes to the growing body of literature on capital markets in emerging economies by demonstrating that financial performance ratios remain powerful predictors of stock prices even in markets characterized by relatively low insurance penetration and structural inefficiencies.

In practical terms, the results provide valuable insights for investors, policymakers, and corporate managers. The evidence emphasizes the importance of analyzing earnings capacity and valuation multiples for investors when making investment decisions. For regulators and policymakers, the findings highlight the relevance of promoting transparency and financial reporting quality, as reliable performance indicators are essential for efficient capital markets.

7. RECOMMENDATIONS

7.1 For Investors

While EPS, PER, and ROE are shown to influence stock prices significantly, investors should not rely solely on these ratios when making investment decisions. Stock prices are also shaped by broader macroeconomic variables (e.g., inflation, interest rates, and exchange rate fluctuations), firm-level factors (e.g., liquidity, solvency, and dividend policies), and industry-specific risks (e.g., regulatory changes in the insurance sector). A more holistic evaluation framework that combines financial ratios with macroeconomic and sectoral indicators would improve the quality of investment decisions.

7.2 For Policymakers and Regulators

Results from this study indicates that investors are highly responsive, profitability and valuation indicators. To foster further growth in Pakistan's capital markets, regulators such as the Securities and Exchange Commission of Pakistan (SECP) and the PSX should strengthen corporate governance frameworks, improve disclosure standards, and enhance transparency in financial reporting. This would reduce information asymmetry and improve investor confidence, promoting market efficiency.

7.3 For Future Researchers

Future studies can build upon this research by:

- Incorporating additional financial variables, such as dividend yield, book-to-market ratio, and leverage ratios, provides a more comprehensive model of stock price determinants.

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- Including macroeconomic indicators (e.g., inflation, GDP growth, and exchange rate volatility) to capture the broader market environment and sustainable growth.
- This study conducts data from 15 companies only. Expanding the sample size or extending the study period to test the stability of these relationships over time.
- Conducting comparative analyses across sectors (e.g., banking, manufacturing, or telecommunications) to explore whether the observed relationships are unique to insurance or more broadly applicable in Pakistan's capital market.
- Advanced econometric methods such as Generalized Method of Moments (GMM) or panel cointegration techniques are applied to address potential endogeneity and improve causal inference.

AUTHOR'S CONTRIBUTION AND DECLARATIONS

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populations, or children, in any form of data collection or experimentation. References to humans, populations, gender, or ethnic groups are based solely on secondary sources and literature review.

Furthermore, this research did not involve the use of animals, plants, or any biological specimens requiring ethical approval. Therefore, ethical clearance from an institutional review board, prior informed consent (PIC) from respondents, or animal/plant welfare approvals are not applicable to this study.

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