Beyond the Balance Sheet: Analyzing the Relationship between Corporate Governance, Financial Performance, and Stock Prices in Pakistan's Non-Bank Financial Industry

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Abstract

This study explores the complex relationship among corporate governance, financial performance, and stock prices in Pakistan's non-bank financial industry from 2017 to 2021. Employing panel least squares and generalized method of moments for empirical analysis, our research highlights the substantial and positive correlation between stock prices and earnings per share, emphasizing the significance of profits per share. Corporate governance factors, such as board meetings, board size, and board independence, exhibit shaded impacts on stock prices. Board meetings transition from insignificance in static analysis to a negative, substantial association in dynamic analysis. Conversely, board size and board independence remain insignificant, suggesting a limited influence on stock price fluctuations. Institutional ownership emerges as a robust driver, displaying a positive impact in both static and dynamic analyses. In contrast, managerial ownership yields mixed impacts, with static analysis revealing a nonsignificant negative relationship and dynamic analysis unveiling a significant negative association. The study underlines the need to consider both static and dynamic perspectives when evaluating these relationships, highlighting the temporal dynamics and lagged effects in assessing the influence of managerial ownership on stock prices. Additionally, return on assets demonstrates an insignificant impact on stock prices in Pakistan's non-bank financial industry, consistent across both static and dynamic analyses.

Keywords: stock prices, financial performance, corporate governance, Earnings per share

1. Introduction

Stocks, categorized as securities traded on the capital market, offer the potential for high returns but come with inherent risks. Investors use stock valuation to assess intrinsic value, aiding in determining if a stock is over or undervalued at its current market price. Valuation approaches include absolute and relative methods. Relative valuation, such as comparable company analysis, relies on similar company stock prices and past movements. Absolute valuation involves scrutinizing financial statements to estimate stock growth and predict price trends (Puspitaningtyas, 2017; Sulehri & Ali, 2020). Returns on stock investments, comprising dividends and capital gains, exhibit a positive correlation with investment risk and profitability. Stock prices, reflecting market participants' interactions based on supply and demand, respond to changes in relevant information in an efficient capital market. The link between a company's financial performance and its stock price emphasizes the role of profits in attracting investor interest (Elliott & Schaub, 2006; Jacob & Harahap, 2007; Sulehri et al., 2018; Audi et al., 2023).

Corporate governance, instrumental in achieving strategic goals while minimizing operational risks, significantly influences a company's stock performance and market-to-book ratio (Drobetz et al., 2004; Nisar et al., 2021). Effective governance, coupled with firm performance, produces a positive response from investors toward stock prices (Walker, 2013; Audi et al., 2022). This study focuses on the non-bank financial industry in Pakistan, comprising entities providing financial services without banking licenses. These intermediaries contribute to economic growth, serving as alternatives to traditional banking (Sufian, 2008; Chong et al., 2010; Ali et al., 2021; Sulehri & Sharif, 2022).

While the non-bank financial industry plays a crucial role in economic development, empirical studies on the relationship between corporate governance, financial performance, and stock prices

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are limited and inconclusive. This study aims to address this gap by investigating the impact of earnings per share, financial performance, and corporate governance on stock prices in Pakistan's non-bank financial industry from 2017 to 2021. The objectives include assessing the influence of earnings per share, financial performance, and corporate governance on stock prices, recognizing the need for a comprehensive study to bridge gaps in existing literature, and raising awareness among investors and policymakers. The specific aims and objectives of this research are:

- To investigate the impact of earnings per share on the stock price of the non-bank financial industry in Pakistan
- To examine the impact of financial performance on the stock price of the non-bank financial industry in Pakistan
- To assess the impact of corporate governance on the stock price of the non-bank financial industry in Pakistan

The non-bank financial industry in Pakistan faces a challenging economic landscape, marked by a slowdown in asset growth and a decline in stock prices (Khowaja et al., 2021; Audi et al., 2022). While a few studies in Pakistan have explored the impact of either firm financial performance or corporate governance on the stock prices of non-bank financial industries, none have examined both aspects together. Various factors interact to exert a significant effect on the stock prices of non-bank financial industries. Therefore, there is a substantial need for comprehensive studies that consider multiple factors simultaneously to assess the impact on the stock prices of the non-bank financial industry.

2. Literature Review

The literature review highlights the critical role of stock prices in investment decisions, emphasizing the factors influencing them. Hashmi et al. (2021) highlighted the significance of stock prices for investors and stakeholders. Yin and Nie (2021) explored the predictive power of cash dividend ratios, recognizing that stock prices are influenced by various factors, such as Earnings Per Share (EPS), Price-to-Book Value (PBV), Dividend Payout Ratio (DPR), and Net Profit Margin (NPM). The correlation between stock prices and macroeconomic conditions is evident (Chen et al., 1986). Economic prosperity often leads to bullish markets, with macroeconomic fundamentals influencing stock prices. The Arbitrage Pricing Model (APT) introduced by Ross (1976) emphasizes the linear relationship between risk factors and asset returns, identifying macroeconomic variables as key determinants.

Fama and French (1995, 2006) proposed a multifactor model incorporating economic variables, while empirical evidence on the impact of macroeconomic variables on stock prices remains inconclusive. Several studies investigated the relationship between financial ratios and stock prices in different contexts. Arslan and Zaman (2014) find a positive relationship between the price-earnings ratio and stock prices. Studies in Iran (Alroaia et al., 2012), Indonesia (Emamgholipour et al., 2013), Greece (Glezakos et al., 2012), and Bangladesh (Haque and Sarwar, 2013) demonstrated the influence of financial ratios on stock prices. Kheradyar et al. (2011) found that accounting information, including EPS and book value per share, explains stock prices in Malaysia. Studies in Pakistan (Khan et al., 2012; Nazir et al., 2010) highlighted the significance of financial ratios like earnings yield, dividend yield, and book-to-market ratio in predicting stock returns.

Vijitha and Nimalathasan (2014) explored the value relevance of accounting information and share prices in Sri Lanka, considering variables such as earnings per share, net asset value per share, return on equity, and price-to-earnings ratio. Their study focused on 20 companies listed on the Colombo Stock Exchange from 2008 to 2012. Regression and correlation models indicated significant correlations between accounting information and stock prices.

Khowaja et al. (2021) studied the involvement of Pakistan's non-bank financial institutions (NBFIs) in the development of the agriculture sector and micro, small, and medium-sized enterprises (MSMEs). Pearson correlation coefficient and regression tests were employed to analyze NBFI performance, revealing a positive relationship between asset-based lending by NBFIs to SMEs and the contribution of SMEs to Pakistan's development, suggesting the need for NBFI operations to expand to rural and semi-urban districts.

Ofoeda (2017) investigated the impact of corporate governance on the profitability of NBFIs, analyzing data from Ghana's banking database over nine years (2006-2014). Various corporate governance indicators, including board size, board meetings, gender diversity, board independence, CEO duality, audit committee size, and meetings, were considered. Return on assets was used to measure profitability, revealing positive correlations between board size, board meetings, audit committee meetings, audit committee size, and profitability. Gender diversity, board composition, independence of the audit committee, and board meetings showed negative correlations with NBFI performance.

Rateiwa and Aziakpono (2017) explored the long-term relationship between NBFI development and economic growth in Nigeria, Egypt, and South Africa using data from 1971 to 2013. Johansen cointegration and vector error correction approaches were applied, showing a strong positive link between NBFI development and economic growth in these countries due to their developed financial systems.

Sukesti et al. (2021) explored the impact of the debt-to-equity ratio, net profit margin ratio, and firm size on stock prices, with firm performance as an intervening variable. They used data from 136 Indonesian stock exchange-listed industries from 2014 to 2018, finding that the debt-to-equity ratio hurt return on assets but had a positive impact on stock prices. Net profit margin had a positive impact on return on assets and stock prices, while firm size had a positive impact on return on assets but no effect on stock prices.

Puspitaningtyas (2017) investigated the impact of financial performance factors (liquidity, profitability, market valuation, and growth) on stock prices of Indonesian non-bank financial institutions (NBFIs). Their findings suggested that market valuation significantly influenced stock prices, while profitability, growth, and liquidity had no impact. Ullah et al. (2017) explored the influence of corporate governance on the solvency risk and financial performance of cement manufacturing companies listed on the Pakistan Stock Exchange (PSX). Their study found that corporate governance positively influenced financial performance but adversely affected solvency risk.

Guo and Platikanov (2019) investigated the preferences of institutional investors regarding organizational attributes and characteristics and how institutional ownership influences firm value. Their study included data from ten Chinese non-financial firms over eleven years (1999-2010). Institutional investors were categorized into pressure-sensitive and pressure-insensitive institutions, along with private and public-owned institutions. The findings revealed that institutional ownership was significantly associated with companies' Q-ratio, with a stronger influence from independent institutional ownership rather than private ownership. This relationship strengthened after 2005, coinciding with improvements in China's stock market regulations. Notably, ownership by gray institutions exhibited no significant link with organizational performance, suggesting conflicting interests that diminish over time.

Tulung et al. (2018) explored the impact of corporate governance on intellectual capital disclosure, focusing on Indonesia's private banks. Variables included the structure of independent commissioners, audit committee competency, and risk oversight committees. The study employed purposive sampling and analyzed data from 62 private banks. Multilinear regression was used for data analysis, revealing that the structure of independent commissioners significantly influenced intellectual capital disclosure, as did the competencies of the audit committee. However, the

competencies of the risk oversight committee did not impact intellectual capital disclosure. Additionally, the statistical test results revealed that competent audit committees, independent commissioner composition, and the risk oversight committee positively affected intellectual capital disclosures.

Lew et al. (2018) investigated the impact of corporate governance on the performance of Chinese organizations listed on the Shanghai and Shenzhen Stock Exchanges. Their study combined resource-dependence and agency theories, assessing the influence of leadership structure and board composition. The analysis revealed that splitting the positions of CEO and chair enhanced firm performance. However, appointing a larger proportion of outside directors to the board had a detrimental effect. The research provided partial support for agency theory and expanded understanding of corporate governance in developing firms.

3. Theoretical and Conceptual links

The theoretical framework for the study involves the agency cost theory, which explores the conflicts of interest between principals and agents within a firm (Jensen & Meckling 1976; Ashraf & Sulehri, 2023). In this context, the agency cost theory provides a lens to analyze the relationship between corporate governance mechanisms and stock prices. Return on assets, managerial ownership, institutional ownership, board independence, board size, board meetings, and earnings per share serve as key variables reflecting governance structures and financial performance. According to agency cost theory, higher managerial ownership and institutional ownership may align interests, reducing agency costs. Board independence and size, along with effective board meetings, are mechanisms to mitigate agency conflicts. Earnings per share links to financial performance. The conceptual framework theorizes that optimal governance practices, guided by agency cost theory, contribute to improved firm performance and, consequently, higher stock prices. The conceptual model for our study becomes as:

Figure1: Conceptual framework

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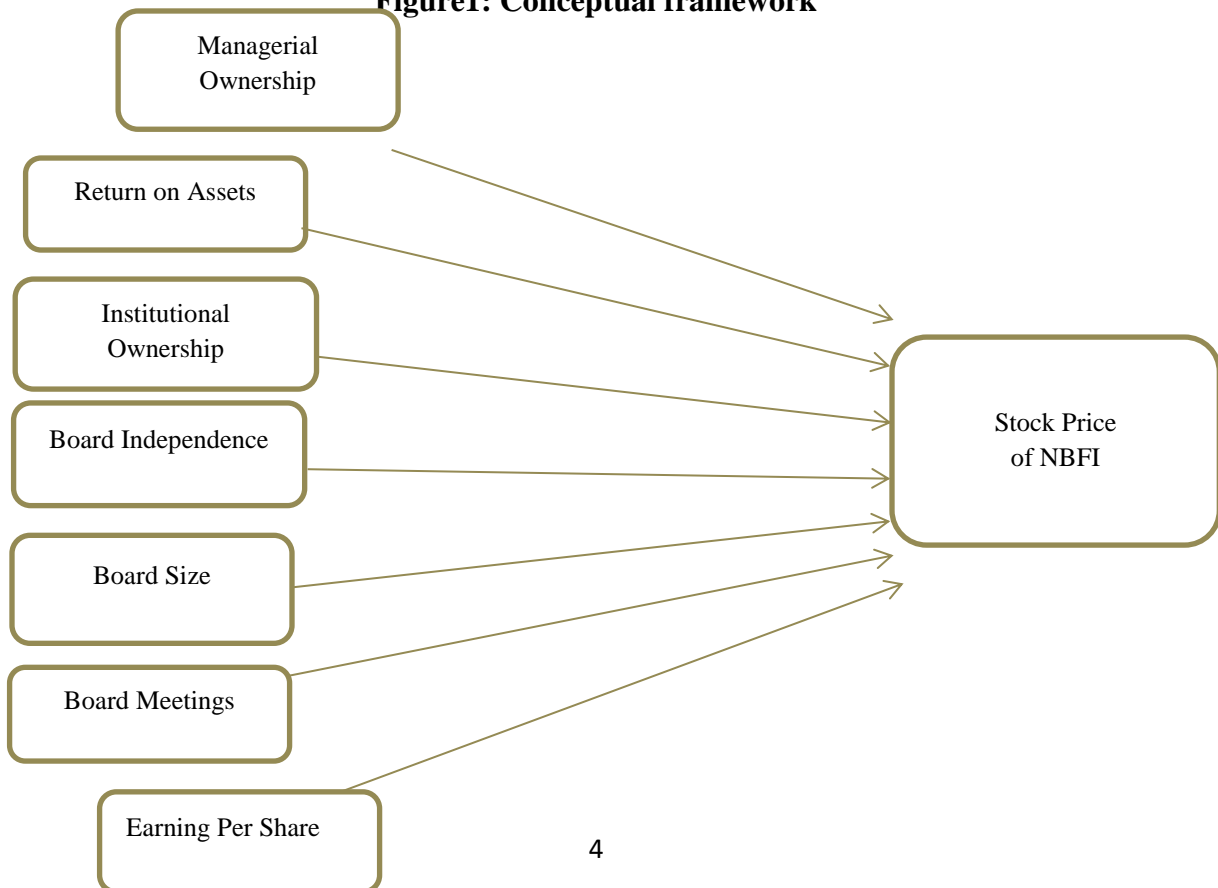
To examine the impact of explanatory variables on dependent variable, the econometric model can be written as:

$$SP_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BM_{it} + \beta_3 BS_{it} + \beta_4 BI_{it} + \beta_5 IO_{it} + \beta_6 MO_{it} + \beta_7 ROA_{it} + U_{it}$$

SP= Stock Price
EPS= Earnings Per Share
BM= Board Meetings
BS= Board Size
BI= Board Independence
IO= Institutional Ownership
MO= Managerial Ownership
ROA= Return on Assets
β_i = constant and slope coefficients
U= error term
i= selected cross-sections (100 non-bank financial firms listed on Pakistan Stock Exchange)
t= selected time period (2017-2021)

4. Operational Definitions & Measurement of Variables
4.1. Earnings Per Share (Eps)
The stock price is the influencing sign of the firm's management. If it keeps growing, the investor will consider that the firm is competent to handle the operation. The reliance or trust of the traders may be very important for the issuer. The more people show confidence in the issuers, the stronger their readiness to invest in their inventory. If there is a high demand for the share, it is easier for the issuer to raise the share price. Earnings per share (EPS) is the monetary value of earnings per outstanding share of common stock for a company. Measurement of EPS = Net Profit after tax – Preferred Dividend /Average Outstanding Shares

4.2. Board Meeting
Total number of the Board of Director meetings in one year: Measurement of BM = Total Board of Director meetings in one Calendar year

4.3. Board Size
Board size includes all the members of the board of an organization: Measurement of BS = Total number of board members

4.4. Board Independence
Independent commissioners are classified as those members of the corporate board who don't have any involvement and connection in terms of investment, finance organization, etc. Independent directors are also called non-executive directors or outside directors.
Measurement of BI = Number of independent members / Total number of board members

4.5. Institutional Ownership
Institutional ownership is the ownership of shares kept by the government, financial industries, foreign institutions, legal organizations, trust funds, and other institutions at the end of the financial year.
Measurement of IO = Shares Owned by the Government, Institutions, or other Companies/Outstanding shares

4.6. Managerial Ownership
Managerial ownership is the ownership of shares which is kept by the management of the firm and that is measured through percentages. Measurement of MO = Percentage of shares owned by the management / Outstanding shares

4.7. Return on Assets
Factors like financial performance are used to view the effectiveness and proficiency of the businesses in accomplishing their goals. It is productive when the administration is capable of

selecting the proper mechanism and suitable goals to attain it. In the meantime, proficiency means the ratio in the middle of input and output, in that specific earning produces the most efficient final results. In our study, we will use the return on assets to measure the firm financial performance. Tulung and Ramdani (2016) documented that return on assets is the most appropriate method used to measure financial performance. Measurement of ROA = Net Income / Total Assets

5. Econometric methodology

For empirical analysis, we have applied the generalized method of moments. The generalized method of moments (GMM) is a generic method for estimating parameters in statistical models. Usually, it is applied in the context of semiparametric models, where the parameter of interest is finite-dimensional, whereas the full shape of the data's distribution function may not be known, and therefore, maximum likelihood estimation is not applicable. The GMM estimators are known to be consistent, asymptotically normal, and most efficient in the class of all estimators that do not use any extra information aside from that contained at the moment conditions. GMM was developed by Pearson (1894) and later augmented by Hansen (1982).

Suppose the available data consists of T observations $\{X_t\}$ t = 1,..., T, where each observation X_t is an n-dimensional multivariate random variable. We assume that the data come from a certain statistical model, defined up to an unknown parameter $\theta \in \Theta$. The goal of the estimation problem is to find the "true" value of this parameter, θ_0, or at least a reasonably close estimate. A general assumption of GMM is that the data can be generated by a weakly stationary ergodic stochastic process. (The case of independent and identically distributed (iid) variables X_t is a special case of this condition.)

To apply GMM, we need to have "moment conditions", that is, we need to know a vector-valued function g (X, θ) such that

$$Y(\theta_0) = E[g(X_t, \theta_0)] = 0 \tag{1}$$

where E denotes expectation, and X_t is a generic observation. Moreover, the function m(θ) must differ from zero for $\theta \neq \theta_0$, otherwise, the parameter θ will not be point-identified.

The basic idea behind GMM is to replace the theoretically expected value E [·] with its empirical analog—sample average:

$$\widehat{Y}(\theta) = \frac{1}{T}\sum_{t=1}^{T} g(Xt, \theta) \tag{2}$$

and then minimize the norm of this expression to θ. The minimizing value of θ is our estimate for θ_0.

By the law of large numbers, for large values of T. The generalized method of moments looks for a number that would make it as close to zero as possible. Mathematically, this is equivalent to minimizing a certain norm of (norm of m, denoted as ‖ Y ‖, measures the distance between m and zero). The properties of the resulting estimator will depend on the particular choice of the normal function, and therefore the theory of GMM considers an entire family of norms, defined as

$$\left\|\widehat{Y}(\theta)\right\|_{W}^{2} = \widehat{Y}(\theta)^{T} W\widehat{Y}(\theta) \tag{3}$$

Where W is a positive-definite weighting matrix and denotes transposition. In practice, the weighting matrix W is computed based on the available data set, which will be denoted as. Thus, the GMM estimator can be written as

$$\widehat{\theta} = \text{arg Min } \left(\frac{1}{T}\sum_{t=1}^{T} g(Xt, \theta)\right)^{T} \widehat{W}\left(\frac{1}{T}\sum_{t=1}^{T} g(Xt, \theta)\right) \tag{4}$$

Under suitable conditions, this estimator is consistent, asymptotically normal, and with the right choice of weighting matrix also asymptotically efficient.

6. Results and Discussions

The results of descriptive statistics have been given in table 1, the results show that selected variables have correct intertemporal properties to apply advanced analysis.

Table-1 Descriptive Statistics

	SP	EPS	BM	BS	BI	IO	MO	ROA
Mean	34.42807	3.643471	4.797701	7.227586	0.230805	0.146245	0.178263	0.576828
Median	9.690000	0.540000	4.000000	7.000000	0.250000	0.061500	0.030700	0.030000
Maximum	801.2820	223.6800	12.00000	36.00000	0.800000	1.000000	1.000000	14.78000
Minimum	0.731000	-31.00000	2.000000	3.000000	0.000000	0.000000	0.000000	-6.270000
Std. Dev.	89.92447	16.41017	1.399636	3.284676	0.143412	0.217956	0.286055	2.126855
Skewness	5.566888	8.267567	2.155129	4.026952	0.498433	2.346597	1.794129	3.767700
Kurtosis	37.75919	92.63034	9.175783	32.08576	3.973938	8.568950	4.978109	21.52651
Jarque-Bera	24145.45	150564.5	1028.025	16509.10	35.20415	961.3366	304.2917	7250.251
Sum	14976.21	1584.910	2087.000	3144.000	100.4000	63.61660	77.54460	250.9200
Sum Sq. Dev.	3509502.	116873.5	850.1977	4682.469	8.926018	20.61701	35.51324	1963.204
Observations	435	435	435	435	435	435	435	435

Table 2 presents the correlation matrix results. The results show that selected explanatory variables i.e. ROA, EPS, managerial ownership, institutional ownership, board independence, board size, and board meetings have significant correlation with stock price. However, their low correlations with each other suggest that there is no issue of multicollinearity, emphasizing the suitability of the selected model for further empirical analysis.

Table-2 Correlation Matrix

Variables	SP	EPS	BM	BS	BI	IO	MO	ROA
SP	1.0000							
EPS	0.1739***	1.0000						
BM	0.0107	0.0720	1.0000					
BS	-0.0385	-0.0190	0.2440***	1.0000				
BI	-0.0183	-0.0782	-0.0667	-0.24***	1.0000			
IO	0.0228	-0.47***	-0.1012*	0.0154	0.220***	1.0000		
MO	0.0206	0.278***	0.0363	-0.0398	-0.0167	-0.0154	1.0000	
ROA	0.0183	0.1611**	0.0369	0.2503***	-0.114*	-0.0339	-0.0178	1.0000

***, **,* represent significant 1 percent, 5 percent, and 10 percent respectively.

The study investigates the impact of corporate governance and financial performance on stock prices in Pakistan's non-bank financial industry, employing panel least squares and generalized method of moments. Results from both methods, detailed in Table-3, reveal distinctive patterns. Earnings per share consistently exhibit a positive and significant influence on stock prices, with a 1 percent increase correlating with a 6-12 percent stock price rise. However, divergent impacts emerge for board meetings, board size, and board independence between static and dynamic analyses, underscoring the temporal nuances. Board meetings show a positive yet insignificant impact statically, while dynamically, a 1 percent increase results in a 49 percent stock price decrease. Board size and board independence, negative but insignificant statically, shift to negative and significant dynamically, emphasizing the evolving relationships over time. Institutional

ownership consistently demonstrates a positive and significant impact on stock prices, with a 1 percent increase leading to a 4.5-8.4 percent rise. Managerial ownership, insignificant statically, becomes negatively significant dynamically, with a 1 percent increase corresponding to a 0.3 percent stock price reduction. Return on assets remains consistently insignificant. The dynamic analysis offers a nuanced perspective, revealing significant impacts that static analysis overlooks. The study emphasizes the necessity of considering temporal dimensions and the interplay between variables for a comprehensive understanding of stock price dynamics in the non-bank financial industry of Pakistan (Camagni et al., 2017; Sulehri & Ali, 2022). While static analysis suggests insignificance in certain variables, dynamic analysis unveils their crucial role, highlighting the intricate nature of factors influencing stock prices. This underscores the importance of holistic research approaches that incorporate both static and dynamic viewpoints to decipher the intricate dynamics of stock prices in the evolving landscape of the non-bank financial sector in Pakistan (Combes & Gobillon, 2015; Bourgeois and Jésus, 2004; Starr, 2014; Audi et al., 2021).

The study explores the impact of various factors on stock prices in Pakistan's non-bank financial industry, employing panel data analysis with panel least squares and generalized method of moments. The following hypotheses are tested:

H1a: Earnings per Share (EPS) Impact on Stock Price: The analysis reveals a positive and statistically significant association between EPS and stock prices, supporting existing literature. The consistency across both panels' least squares and generalized method of moments strengthens the reliability of this relationship, indicating that EPS is a crucial determinant of stock prices in the non-bank financial sector of Pakistan. H1b: Board Meetings Impact on Stock Price: Results from panel least squares suggest a positive but statistically insignificant link between board meetings and stock prices. In contrast, generalized method of moments indicates a negative and significant impact, challenging conventional wisdom. The choice of analytical method significantly influences the findings, emphasizing the importance of appropriate techniques in financial research. H1c: Board Size Impact on Stock Price: Both panel least squares and generalized method of moments yield consistent outcomes, indicating a negative but statistically insignificant effect of board size on stock prices. Despite the lack of significance, these results suggest that board size may not be a critical driver of stock price movements in the non-bank financial industry of Pakistan. H1d: Board Independence Impact on Stock Price: While panel least squares show a negative but insignificant relationship, generalized method of moments indicates a negative and significant impact of board independence on stock prices. This unexpected finding challenges traditional views, emphasizing the necessity of considering methodological nuances in empirical research. H1e: Institutional Ownership Impact on Stock Price Both analytical methods affirm a positive and significant impact of institutional ownership on stock prices. The consistency between static and dynamic analyses highlights the robustness of this relationship, indicating that higher institutional ownership contributes positively to stock prices in the non-bank financial industry of Pakistan. H1f: Managerial Ownership Impact on Stock Price: Panel least squares suggest a negative but statistically insignificant relationship, while generalized method of moments reveals a negative and significant impact of managerial ownership on stock prices. This transition from insignificance to significance underscores the temporal dynamics involved, offering nuanced insights into the impact of managerial ownership on stock prices. H1g: Return on Assets (ROA) Impact on Stock Price: Results from both panel least squares and generalized method of moments indicate the insignificance of ROA in influencing stock prices in the non-bank financial industry of Pakistan. This underscores the complex nature of stock price determinants in the financial sector. Finally, the study provides a comprehensive examination of factors influencing stock prices in the non-bank financial industry of Pakistan. The nuanced findings highlight the importance of considering both static and dynamic analyses, as well as methodological choices, in understanding the intricate dynamics of stock prices in this context.

Table-3 Empirical Outcomes

| | Dependent Variable: SP | | Dependent Variable: SP | |
| | Method: Panel Least Squares | | Panel Generalized Method of Moments | |
Variable	Coefficient	Prob.	Coefficient	Prob.
EPS	0.068066	0.0027	0.127334	0.0194
BM	0.075229	0.7858	-0.497950	0.0653
BS	-0.285373	0.5065	-0.844854	0.2997
BI	-0.131063	0.5370	-0.392315	0.0163
IO	0.045346	0.0592	0.084454	0.0064
MO	-0.001025	0.4753	-0.003312	0.0013
ROA	-0.002702	0.8694	0.012613	0.3244
C	141.0340	0.0120	-	-

7. Conclusions

This study delves into the intricate relationships among corporate governance, financial performance, and stock prices within Pakistan's non-bank financial industry. A key finding is the robust and statistically significant positive link between earnings per share (EPS) and stock prices, substantiating the critical role of EPS in stock valuation. The governance variables - board meetings, board size, and board independence - reveal nuanced patterns, exhibiting divergent impacts between static and dynamic analyses. Board meetings show a positive yet insignificant association in static analysis, evolving into a negative and significant relationship in dynamic analysis, suggesting a temporal influence on investor sentiment and stock valuation. Board size and board independence, however, consistently exhibit insignificance across both analyses, indicating that, within this industry, they may not be primary drivers of stock price movements. Institutional ownership emerges as a significant positive driver of stock prices, emphasizing the influential role of institutional investors in shaping stock valuations. Managerial ownership exhibits varying effects, transitioning from a negative but insignificant impact in static analysis to a significant negative relationship in dynamic analysis. This shift underscores the importance of considering temporal dynamics when assessing the influence of managerial ownership on stock prices. Return on assets (ROA) demonstrates an insignificant impact on stock prices, consistent across static and dynamic analyses, emphasizing the complex nature of stock price determinants in the non-bank financial industry of Pakistan.

7.1. Policy Suggestions

Policymakers can establish strategies that boost earnings for non-bank financial institutions. Operational efficiency, diversified revenue streams, and effective cost management are areas of focus. Transparent financial reporting is crucial for building investor confidence and ensuring accurate EPS data. Recognize the role of board meetings in shaping investor sentiment. Encourage regular and meaningful meetings with a focus on strategic planning and governance. Providing guidelines on meeting frequency and agenda may enhance their effectiveness in decision-making. Encourage non-bank financial institutions to assess board sizes based on their specific needs and operational complexities. Policymakers can provide guidelines for determining appropriate board sizes, considering the institution's size and scope of operations. Implement regulatory measures to ensure an adequate number of independent directors on boards. This can enhance accountability and reduce conflicts of interest. Mandatory disclosure of board independence can provide transparency to investors. Encourage institutional investors to invest in the non-bank financial industry. Policymakers can create a conducive regulatory environment and offer incentives for institutional investors. Stewardship codes outlining institutional responsibilities in corporate governance can be beneficial. Consider regulatory measures aligning managerial ownership interests with those of shareholders. Limits on managerial ownership or longer vesting periods for

managerial shares can be explored. Transparent reporting of managerial ownership enhances market confidence. Encourage non-bank financial institutions to focus on improving operational efficiency and asset utilization for enhanced ROA. Policymakers can provide incentives for technology and innovation investments and support training programs for management capabilities.

7.2. Limitations and Future Directions

Future research could benefit from more comprehensive and accurate datasets. The specific time frame analyzed may not capture long-term effects or structural changes. A longer time series or examination of different periods could provide a more comprehensive understanding of stock price dynamics. Findings are specific to the non-bank financial industry in Pakistan, cautioning against generalizations. Future studies could explore other sectors to identify industry-specific variations in the impact of corporate governance on stock prices. Investigating the role of market sentiment and investor behavior in shaping stock prices within the context of corporate governance offers a valuable avenue for future research. Comparative studies across different countries can provide insights into how variations in corporate governance regulations and financial market structures influence stock prices. Conducting event studies around significant corporate governance events can help assess the immediate and long-term impact of such events on stock prices.

References

Alroaia, Y. V., Javidnia, M., Shahmirzadi, M. K., & Nabavi, S. R. (2012). A Survey of the Effective Factors on the Entrepreneurial Success and Its Impact on the Development of Industrial Section by Use of Fuzzy Dematel. *Caspian Journal of Applied Sciences Research*, *1*(10).

Ali, A., Audi, M., Nisar, S., & Senturk, I. (2021). Determinants of Public Procurement Efficiency: A Comprehensive Study of Public Procurement Rules of Punjab, Pakistan. *Empirical Economics Letters*, 21 (3).

Arslan, M., & Zaman, R. (2014). Intellectual capital and its impact on financial performance: A study of oil and gas sector of Pakistan. *International Letters of Social and Humanistic Sciences*, *43*, 125-140.

Ashraf, M. S., & Sulehri, F. A. (2023). Impact of Asset Quality on Financial Stability of Islamic Banks in Pakistan: A Moderating Role of Corporate Image. *Bulletin of Business and Economics (BBE)*, *12*(3), 268-277.

Audi, M. Sadiq, A. Ali, A. and Roussel, Y. (2021). Performance Evaluation of Islamic and Non-Islamic Equity and Bonds Indices: Evidence from Selected Emerging and Developed Countries. *Journal of Applied Economic Sciences*, 16(73), 251– 269.

Audi, M., Sulehri, F. A., Ali, A., & Al-Masri, R. (2022). An Event Based Analysis of Stock Return and Political Uncertainty in Pakistan: Revisited.

Audi, M., Sulehri, F. A., Ali, A., & Al-Masri, R. (2022). The Role of Terrorist Events in Determining Stock Returns in Pakistan: Covering Most Vibrant Era 2003-2013.

Audi, M., Sulehri, F. A., Ali, A., & Al-Masri, R. (2023). The Role of Terrorist Events in Determining Stock Returns in Pakistan: Covering Most Vibrant Era 2003-2013. *Empirical Economics Letters*, 22 (7), 153-164.

Bourgeois, R., & Jésus, F. (2004). *Participatory prospective analysis: exploring and anticipating challenges with stakeholders* (No. 1437-2016-118895).

Chen, N. F., Roll, R., & Ross, S. A. (1986). Economic forces and the stock market. *Journal of Business*, 383-403.

Chong, F., et al. (2010). Demographic factors and repayment performance of NBFI customers in Kuching. *International Conference on Science and Social Research, 10(1),* 1340-1345.

Combes, P. P., & Gobillon, L. (2015). The empirics of agglomeration economies. In *Handbook of regional and urban economics* (Vol. 5, pp. 247-348). Elsevier.

Drobetz, W., et al. (2004). Corporate governance and expected stock returns: Evidence from Germany. *European Financial Management*, *10*(2), 267-293.

Elliott, RS., & Schaub, M. (2006). On the New-York stock exchange: A look at investment opportunities. *International Business & Economics Research Journal*, 5(3), 7-14.

Emamgholipour, M., Bagheri, S., Mansourinia, E., & Arabi, A. (2013). A study on relationship between institutional investors and earnings management: Evidence from the Tehran Stock Exchange. *Management Science Letters*, *3*(4), 1105-1112.

Fama, E. F., & French, K. R. (1995). Size and book-to-market factors in earnings and returns. *The journal of finance*, *50*(1), 131-155.

Fama, E. F., & French, K. R. (2006). Profitability, investment, and average returns. *Journal of financial economics*, *82*(3), 491-518.

Glezakos, M., Mylonakis, J., & Kafouros, C. (2012). The impact of accounting information on stock prices: Evidence from the Athens Stock Exchange. *International Journal of Economics and Finance*, *4*(2), 56-68.

Guo, L., & Platikanov, S. (2019). Institutional ownership and corporate governance of public companies in China. *Pacific-Basin Finance Journal*, 57(3), 101-180.

Haque, A., & Sarwar, S. (2013). Effect of fundamental and stock market variables on equity return in Pakistan. *Science International*, *25*(4).

Hashmi, S. M., Chang, B. H., & Bhutto, N. A. (2021). Asymmetric effect of oil prices on stock market prices: New evidence from oil-exporting and oil-importing countries. *Resources Policy*, *70*, 101946.

Jacob, RH., & Harahap, SS. (2007). Hubungan antara indikator mikro dan makro terhadap nilai buku dan harga pasar saham perusahaan. *Media Riset Akuntansi, Auditing dan Informasi*, 7(2), 217-261.

Khan, A., Kaleem, A., & Nazir, M. S. (2012). Impact of financial leverage on agency cost of free cash flow: Evidence from the manufacturing sector of Pakistan. *Journal of Basic and Applied Scientific Research*, *2*(7), 6694-6700.

Kheradyar, S., Ibrahim, I., & Nor, F. M. (2011). Stock return predictability with financial ratios. *International Journal of Trade, Economics and Finance*, *2*(5), 391.

Khowaja, I. A., et al. (2021). The non-banking financial institutions in perspective of economic growth of Pakistan. *Applied Economics Letters*, *28*(8), 701-706.

Lew, Y. K., et al. (2018). The impacts of independent director and CEO duality on performance in the Chinese post-institutional-transition era. *Canadian Journal of Administrative Sciences*, *35*(4), 620–634.

Nazir, M. S., Nawaz, M. M., Anwar, W., & Ahmed, F. (2010). Determinants of stock price volatility in Karachi stock exchange: The mediating role of corporate dividend policy. *International Research Journal of Finance and Economics*, *55*(55), 100-107.

Nisar, S., Asif, R., & Ali, A. (2021). Testing the Presence of the January Effect in Developed Economies. *Journal of Finance and Accounting Research (JFAR)*, 3(2), 1-16.

Puspitaningtyas, Z. (2017). Is financial performance reflected in stock prices. *Advances in Economics, Business and Management Research*, *40*(1), 17-28.

Rateiwa, R., & Aziakpono, M. J. (2017). NBFI and the attainment of sustainable development goals: could this be the trump card for Africa. *Africagrowth Agenda,* 1(1), 8-13.

Ross, S. A. (1976). Options and efficiency. *The Quarterly Journal of Economics*, *90*(1), 75-89.

Starr, M. A. (2014). Qualitative and mixed-methods research in economics: surprising growth, promising future. *Journal of Economic Surveys*, *28*(2), 238-264.

Sufian, F. (2008). The efficiency of non-bank financial intermediaries: empirical evidence from Malaysia. *International Journal of Banking and Finance*, *5*(2), 149-167.

Sukesti, F., et al. (2021). Factors affecting the stock price: The role of firm performance. *The Journal of Asian Finance, Economics and Business*, *8*(2), 165-173.

Sulehri, F. A., & Ali, A. (2020). Impact of political uncertainty on Pakistan stock exchange: An event study approach. *Journal of Advanced Studies in Finance*, *11*(2), 194-207.

Sulehri, F. A., & Ali, A. (2022). Proprietorship Structure and Firm Performance in the Context of Tunneling: An Empirical Analysis of Non-Financial Firms in Pakistan.

Sulehri, F. A., & Naeem, M. Z. (2018). The Role of Commercial Banks in Determining the Industrial Productivity in Pakistan: A Time Series Analysis. *Bulletin of Business and Economics (BBE)*, *7*(4), 185-196.

Sulehri, F. A., & Sharif, S. (2022). The Impact of Firm Sustainability on Firm Growth: Evidence from USA. *Journal of Policy Research*, *8*(2), 1-15.

Tulung, J. E., et al. (2018). The influence of corporate governance on the intellectual capital disclosure: A study on Indonesian private banks. *Banks and Bank Systems*, *13*(4), 61–72.

Vijitha, P., & Nimalathasan, B. (2014). Value relevance of accounting information and share price: A study of listed manufacturing companies in Sri Lanka. *Merit Research Journal of Business and Management*, *2*(1), 1-6.

Walker, S. (2013). Corporate Governance: Its effect on share price. *RIBM Doctoral Symposium,* 1(1), 1-20.

Yin, L., & Nie, J. (2021). Adjusted dividend-price ratios and stock return predictability: Evidence from China. *International Review of Financial Analysis*, *73*, 101618.