EXAMINING THE ROLE OF CORPORATE DIVIDEND POLICY AND ITS IMPACT ON THE STOCK PRICES OF THE FIRMS LISTED ON PSX

Asif Saeed Naji[1]*, Muhammad Shujaat Saleem[2] and Marium Javed[3]

ABSTRACT

The concept of dividend policy pertains to the strategic decision-making process through which a company determines the proportion of its profits to be distributed as dividends to shareholders versus the amount retained as earnings for reinvestment in future growth opportunities. This policy plays a crucial role not only in influencing shareholder returns but also in shaping the firm's overall financial strategy and stock price dynamics. This research investigates the key elements of corporate dividend policy that influence share prices within the context of the oil and gas sector of the Pakistan Stock Exchange (PSE). The study explores a range of variables, including Dividend Per Share (DPS), Earnings Per Share (EPS), Dividend Yield (DY), Payout Ratio (POR), Retention Ratio (RR), along with macroeconomic factors such as GDP, interest rates, and inflation. The dependent variable in this analysis is the market price per share, while the independent variables encompass DPS, EPS, DY, POR, RR, and the macroeconomic factors. Utilizing secondary data from the oil and gas sector, the findings reveal that DPS, EPS, POR, and DY significantly impact stock prices, whereas RR appears to have no significant effect. These results align with existing literature on the topic, contributing to a broader understanding of the dynamics between corporate dividend policies and market valuation.

Keywords: *Dividend Yield; Retention Ratio; Earnings Per Share; Dividend Per Share.*

INTRODUCTION

Background of the Study

The concept of dividends is inherently complex and often likened to a puzzle with multiple interlocking pieces that are challenging to align (Black, 1976). The formulation of a corporate

[1] Assistant Professor, Department of Business Studies, Bahria University, Karachi, Pakistan.
Email: asifsaeednaji@hotmail.com
[2] Assistant Professor, Department of Management Sciences, Iqra University, Karachi, Pakistan.
[3] Lecturer, Faculty of Management Sciences, Hamdard University, Karachi, Pakistan.
**Corresponding Author*

dividend policy is a multifaceted task, as different stakeholders have varying perspectives. Investors seek higher returns, while corporations focus on reinvesting in profitable ventures. The relationship between profitability and dividend payouts is closely linked to a firm's valuation and stock price (Yusuf et al., 2023). Increased profitability enhances cash flow and allows for higher dividend distributions, ultimately elevating firm value (Husnah & Fahlevi, 2023).

However, the question of dividend payment versus retention remains unresolved. Within corporate finance, dividend policy remains a widely researched but yet-to-be-fully-explored topic. Debate persists regarding whether dividend policy significantly influences stock prices. Investors consider dividends not only a source of income but also an indicator of a firm's financial stability.

Profitability levels directly impact firm valuation, and by extension, stock prices (Juhandi et al., 2020). Dividend yield, which is derived by dividing dividends by the market share price, serves as a key metric for investors. A high yield strengthens investor confidence, while a low yield sends negative signals regarding financial health (Cole et al., 2016). Additional factors such as firm size, profitability, and growth rate also affect share prices (Khalaf, 2022). Another contentious issue is the proportion of profits to be distributed as dividends versus retained earnings. Dividend payments boost investor confidence, while retained earnings play a critical role in a firm's growth and sustainability. Dividend policy is pivotal in addressing these considerations by balancing shareholder wealth maximization with the overall value of the company’s common stock.

Dividend Policy and Importance of Dividend Policy

Dividends represent the portion of corporate profits distributed to shareholders, while dividend policy determines the allocation between distributed profits and retained earnings. This policy is instrumental in balancing dividend payments to shareholders with investments in new ventures. The importance of dividend policy is widely acknowledged in contemporary business environments, as multiple stakeholders—including investors, managers, lenders, and financial analysts—rely on it to assess corporate financial health. Investors view dividends as a crucial income source and as a gauge of a firm’s financial stability. Companies, on the other hand, must determine the appropriate proportion of earnings to be allocated to shareholders versus retained earnings. Investor expectations lean toward high returns within a low-risk framework, where returns may materialize through dividends or capital appreciation. A firm’s profitability

directly influences its stock price, as higher profitability translates into greater value and higher dividends, ultimately affecting investor confidence (Juhandi et al., 2020).

RESEARCH OBJECTIVES

This study aims to achieve the following research objectives:

- To identify and analyze different dividend policies.
- To examine the various theoretical perspectives on dividend policy.
- To establish the relationship between dividend policy and stock prices.
- To assess whether the findings of this study align with previous empirical research.

Environmental Benefits of Pro-Dividend Policy

Corporate dividend policy plays a crucial role in shaping sustainable corporate practices, particularly within the context of Pakistan's publicly listed firms on the Pakistan Stock Exchange (PSX). The interplay between corporate governance, dividend distribution, and environmental sustainability has gained increasing attention, as firms navigate the complexities of economic growth while minimizing their ecological footprint. Prior studies suggest that dividend policy influences corporate investment decisions, capital allocation, and sustainability commitments. In Pakistan, where regulatory frameworks around sustainability are still evolving, an active dividend policy could serve as a strategic mechanism to align corporate financial strategies with environmental responsibility, ensuring compliance with Sustainable Development Goals (SDGs) and ESG frameworks. A well-structured dividend policy can incentivize green investments, encourage corporate responsibility, and promote long-term value creation for both shareholders and stakeholders.

Empirical research underscores the significance of energy diversification and investment in green technologies for corporate growth and sustainability (Ahmed et al., 2022c). PSX-listed firms must recognize that dividends are not just cash payouts but also signals of corporate stability and ethical commitment toward sustainability. The nexus between financial policies and environmental sustainability is evident in international markets, where firms adopting sustainable dividend policies tend to engage more actively in low-carbon energy transitions and green financial strategies (Ahmed et al., 2022a). In the Pakistani context, this connection is even more critical due to high levels of industrial pollution, reliance on fossil fuels, and weak enforcement of environmental policies. An active dividend policy that encourages reinvestment in green infrastructure, carbon offset initiatives, and climate resilience projects could help Pakistani corporations integrate sustainability into their financial decision-making frameworks.

Furthermore, the role of corporate leadership and governance structures in shaping dividend policies and environmental strategies cannot be overlooked. Research in sustainability-focused leadership suggests that environmentally specific corporate governance fosters green innovation, knowledge sharing, and competitive advantage. PSX-listed firms that integrate sustainability into their dividend distribution frameworks—by linking dividends to corporate social responsibility (CSR) efforts, green investments, and emissions reduction targets—can build investor confidence and enhance corporate reputation. The agricultural and energy sectors in Pakistan, in particular, stand to benefit from such policies, as they are highly vulnerable to climate change and pollution-related risks (Ahmed et al., 2022b). Therefore, a proactive and sustainability-driven dividend policy is not just a financial tool but a strategic necessity for firms seeking long-term resilience and environmental stewardship in the Pakistani corporate landscape.

Sustainable Economic Benefits of Pro-Dividend Policy

An active corporate dividend policy plays a vital role in achieving sustainable economic growth and SDGs, especially within the context of Pakistani PSX-listed firms. Dividend policies impact corporate governance, investor confidence, and overall market stability, which in turn affect economic resilience and sustainable corporate practices. A well-structured dividend distribution framework, coupled with high-performance work systems (HPWS), can enhance human capital efficiency and innovation in businesses, leading to greater corporate sustainability (Ahmed et al., 2023). Furthermore, the integration of blockchain technology in dividend payments can improve transparency, security, and efficiency, ensuring that corporate financial strategies align with long-term environmental and economic objectives (Rehman et al., 2023).

Corporate leadership and governance models significantly influence dividend policies and their subsequent economic impact. The adoption of Environmentally Specific Servant Leadership (ESSL) within Pakistani firms fosters green innovation, corporate social responsibility (CSR), and long-term stakeholder engagement. Conversely, the presence of toxic leadership can erode trust, discourage sustainable investments, and lead to counterproductive work behaviors that harm both corporate performance and ESG compliance. By linking dividend policies to sustainability-oriented leadership, firms can cultivate a competitive advantage that enhances environmental responsibility and financial sustainability.

Moreover, foreign remittances play an essential role in economic stabilization and can be effectively channeled into sustainable corporate investments through sound dividend policies

(Shehzadi et al., 2023). The Pakistani economy, being heavily dependent on foreign inflows, can benefit from structured dividend payouts that encourage reinvestment in green projects and technological advancements. Blockchain-enabled financial transactions further enhance remittance efficiency, investor confidence, and corporate governance mechanisms, promoting long-term economic resilience (Rehman et al., 2023). Additionally, energy diversification in corporate investment decisions can catalyze sustainable growth, as seen in Nordic economies, which have successfully integrated renewable energy strategies into their financial frameworks (Ahmed et al., 2022c).

The broader implications of corporate dividend policies extend beyond financial performance to influence macroeconomic stability, environmental conservation, and sustainable development. Technological advancements, HPWS, corporate governance reforms, and blockchain integration can reshape Pakistan's business landscape by fostering economic resilience and climate-conscious investment approaches (Luo et al., 2022). Given the evolving financial dynamics and global sustainability commitments, PSX-listed firms must leverage dividend policies as strategic tools to drive corporate growth, environmental responsibility, and compliance with SDGs. A holistic approach that incorporates foreign remittances, green innovation, leadership development, and ESG compliance is essential to ensuring that Pakistani firms remain competitive in the era of digital transformation and sustainable development.

LITERATURE REVIEW

Dividend Relevance Theory

The Dividend Relevance Theory posits that dividends are integral to a firm's valuation and directly influence the market price of its common stock. This theory, introduced in the early twentieth century, was first articulated by Williams (1938), who argued that the price of a share is determined by discounting future dividend payments to their present value. Gordon (1956, 1959) further reinforced this perspective, contending that both earnings and dividends fundamentally determine stock prices. Additionally, Baker and Powell (2005) asserted that corporate financial decisions, including dividend payouts and retained earnings, significantly impact firm valuation. This school of thought underscores that dividends serve as a key indicator of financial health and future performance, influencing investor confidence and stock price movements.

Dividend Irrelevance Theory

In contrast, the Dividend Irrelevance Theory suggests that dividends have no bearing on a firm's value. This perspective, championed by Miller and Modigliani (1961), Miller (1986), and

Martin (1991), argues that a firm's valuation is derived from its underlying earnings and assets rather than its dividend distribution policies. Modigliani and Miller (1958) assert that a firm's value is independent of dividend payments, emphasizing that retained earnings contribute equally to shareholder wealth. This theory posits that investors are indifferent to whether returns are realized through dividends or capital gains, as long as the firm generates sufficient profitability and growth potential.

Dividend Policy and Share Price Volatility

Empirical research indicates a strong link between dividend policy and stock price fluctuations. Allen and Rachim (1996) found that firms issuing high dividends bolster investor confidence, thereby mitigating risk and positively influencing share prices. Gordon (1963) supported this notion, suggesting that dividend payout ratios and yields exhibit an inverse relationship with stock price declines. Furthermore, Khalaf (2022) emphasized that dividend policy interacts with other financial determinants, such as firm size, profitability, and growth rates, in shaping stock price behavior.

Baskin (1989) provided a nuanced view, arguing that stock price volatility is influenced by multiple factors beyond dividends alone. His study identified four critical dimensions affecting stock price risk: rate of return effects, duration effects, information effects, and arbitrage pricing effects. These findings suggest that dividend policy, while influential, operates within a broader framework of financial market dynamics.

Dividend Yield and Share Price Volatility

Several studies have examined the relationship between dividend yield and stock price volatility in various market contexts. Suleman et al. (2011) analyzed firms listed on the Pakistan Stock Exchange (PSX) from 2005 to 2009, employing multiple regression models to establish a significant positive correlation between dividend yield and stock prices. Their findings also indicated a negative relationship between stock prices and firm growth rates.

Similarly, Adesola and Okwong (2009) concluded that dividend policy is intrinsically linked to earnings and earnings per share (EPS), which, in turn, affect share prices. Akbar and Baig (2010) investigated 79 firms listed on the PSX and determined that both cash and stock dividends have a considerable impact on share price movements. In a related study, Nazir et al. (2010) found that dividend yield and payout ratios significantly influence stock prices, while firm size and leverage exert a negative effect.

Earnings and Share Price Volatility

The relationship between corporate earnings and stock price volatility remains a focal point in financial research. Shah and Noreen (2016) demonstrated that EPS, dividend per share (DPS),

and payout ratios positively affect stock prices. Similarly, Kanwal et al. (2011) conducted a sectoral analysis of the Pakistani cement and pharmaceutical industries by analyzing 25 firms listed on the PSX from 2001 to 2010. Their study, employing fixed and random effects models on panel data, revealed that dividends, ROE, and retention ratios significantly influence stock prices, whereas EPS exerts a negative effect.

Dividend Payout Ratio and Share Price

Empirical studies suggest that the dividend payout ratio correlates positively with stock price volatility. Hamid et al. (2017) researched the PSX, confirming that firms with higher payout ratios experience greater stock price stability. Nazir et al. (2010) examined the interplay between stock price volatility and dividend policy across 73 firms listed on the PSX from 2003 to 2008. Their study, utilizing fixed and random effects models, found a negative association between share prices and both dividend yield and payout ratios. Moreover, firm size and leverage were determined to have an insignificant impact on stock price movements.

Retention Ratio and Share Price

Research on the retention ratio—defined as the proportion of earnings retained rather than distributed as dividends—has yielded mixed findings. Pradhan (2003) investigated the Nepalese market and concluded that while dividend payouts positively correlate with share prices, retention ratios exhibit a negative association. Imran (2011) analyzed 36 engineering firms listed on the PSX between 1996 and 2008, identifying retention ratios, EPS, DPS, profitability, sales growth, cash flows, and firm size as key determinants of dividend policy. However, Eriotis (2005) argued that neither firm size nor profitability significantly impacts dividend distribution patterns, supporting the Dividend Irrelevance Theory.

Macroeconomic Factors: Inflation, Interest Rates, and GDP

Macroeconomic variables such as inflation, interest rates, and gross domestic product (GDP) also play a pivotal role in stock price fluctuations. Hamid et al. (2017) found that inflation significantly influences stock price volatility in the PSX. Earlier, Kraft and Kraft (1977) demonstrated that interest rates, inflation, and GDP collectively shape share price movements, with the money supply exerting an additional influence.

Archana (2016) analyzed the impact of macroeconomic indicators on corporate dividend policies in India by examining 319 firms listed on the Bombay Stock Exchange (BSE) from 2014 to 2023. Employing panel data analysis, the study revealed that inflation did not exert a statistically significant effect on dividend policies. These findings underscore the need for a holistic approach to assessing the determinants of dividend policy and stock price volatility, incorporating both firm-specific and macroeconomic factors.

METHODOLOGY

Research Approach

This study adopts a deductive research approach, which is widely utilized in quantitative research. A deductive approach establishes a relationship between theoretical constructs and empirical findings, enabling researchers to test hypotheses derived from existing theories (Bryman & Bell, 2011). This method follows a structured progression, beginning with theoretical foundations, followed by hypothesis formulation, empirical testing, and ultimately, the derivation of conclusions based on data analysis. In the present study, the relationship between dividend policy and share price volatility will be systematically investigated using this approach.

Research Strategy

Given the study's reliance on numerical data and statistical analysis, a quantitative research strategy has been adopted. The primary objective was to test the formulated hypotheses and generate findings that can be generalized across similar contexts. This approach ensures methodological rigor and enhances the reliability of the results.

Data Collection

Given the scope of this study, secondary data has been utilized, sourced from the State Bank of Pakistan (SBP), which maintains comprehensive records of all companies listed on the Pakistan Stock Exchange (PSE).

Study Period and Sample Selection

The study examines financial data spanning from 2014 to 2023, focusing on the oil and gas sector. Within this sector, 14 firms that consistently distribute dividends have been selected for analysis. The selection criteria ensure that the sample comprises firms with stable dividend payout patterns, allowing for a more precise examination of the relationship between dividend policy and share price dynamics.

Methods

The study employs the methodological framework established by Baskin (1989) and Hussainey et al. (2011) to analyze the statistical relationship between dividend policy and share price volatility. Ordinary Least Squares Regression (OLSR) was applied to panel data to estimate regression coefficients and test the hypotheses. Additionally, correlation and descriptive statistical analyses were conducted to provide further insights into data trends. To ensure the robustness of the results, stationarity tests were performed, and both random and fixed effects models were considered as part of the econometric validation process. To address potential issues of autocorrelation, a correlogram test was employed, thereby enhancing the reliability of the findings.

Stochastic Model

The stochastic model under study is as follows:

$$\mathbf{MP}_{it} = \beta_0 + \beta_1\mathbf{DPS}_{it} + \beta 2\text{EPSit} + \beta_3\mathbf{DY}_{it} + \beta_4\mathbf{POR}_{it} + \beta_5\mathbf{RR}_{it} + \beta_6\mathbf{INF}_{it} + \beta_7\mathbf{IR}_{it} + \beta_8\mathbf{GDP}_{it} + \varepsilon_{it}$$

where *i* and *t* denote cross-sectional and time-series units, respectively; *MP* represents stock price volatility; *DPS* denotes dividend per share; *EPS* denotes earnings per share; *POR* represents the payout ratio; *RR* is the retention ratio; *DY* is the dividend yield; *INF* captures inflation; *IR* represents the interest rate; *GDP* refers to gross domestic product; and *e* denotes the error term.

Model Specification and Variable Selection

With the research objectives outlined in the first chapter, this study aims to determine whether market price per share is influenced by a set of independent variables—dividend per share (DPS), earnings per share (EPS), payout ratio (POR), retention ratio (RR), and dividend yield (DY)—as well as control variables, including inflation (INF), interest rate (IR), and gross domestic product (GDP). To empirically examine these relationships, a stochastic regression model has been developed to assess the impact of independent and control variables on market price per share.

Given the presence of multiple independent variables, a multiple regression approach is employed to analyze the influence of these factors on stock price movements. Regression analysis is a widely used econometric technique that facilitates the identification of relationships between dependent and independent variables. In this study, stock price serves as the dependent variable, while the independent variables include DPS, EPS, POR, RR, and DY. Additionally, the regression model incorporates control variables—INF, IR, and GDP—to enhance robustness and account for potential external economic influences.

DISCUSSION

Overview of Empirical Findings

As delineated in the methodological framework, this study investigates the impact of corporate dividend policy on stock price volatility within the oil and gas sector. The analysis is conducted using a sample of fourteen firms that consistently distribute dividends, thereby ensuring the reliability of the dataset. The dependent variable, market price per share, is analyzed against a set of independent variables comprising DPS, DY, EPS, POR, and RR. To strengthen the empirical rigor of the study, three macroeconomic control variables—INF, IR, and GDP—are incorporated, distinguishing this research from prior studies that have primarily focused on firm-level determinants without considering broader economic factors.

Descriptive Statistics

Table 1. Summary Statistics

Variables	DPS	DY	EPS	GDP	INF	IR	MP	POR	RR
Mean	9.88	3.54	26.88	3.72	10.24	9.84	240.43	39.82	47.25
Median	5.00	2.92	13.17	3.96	8.81	9.25	249.50	38.66	52.00
Maximum	60.00	14.10	325.63	6.18	20.29	14.50	624.11	114.30	100.00
Minimum	0.00	0.00	-159	1.61	7.54	5.40	9.58	0.00	0.00
Std. Dev.	13.07	3.32	44.43	1.42	4.67	4.00	160.88	33.84	35.29
Observations	140	140	139	140	140	140	140	140	140

Note: Where DPS is dividend per share, DY is dividend yield, EPS is earnings per share, GDP is gross domestic product, INF is inflation, IR is interest rate, MP is market price, POR is payout ratio, and RR is retention ratio.

As shown in the first column of Table 4, the average DPS of all firms under study for 10 years is around Rs9.88, which shows that all firms in the oil and gas sectors are paying an average of around Rs9.88 dividend per share. As far as variation in dividend is concerned, the range of values from Rs0 to Rs60 and the standard deviation of 13.07% show variation in annual dividend per share on average. According to the second column of Table 4, the average DY of all firms under study for the period of 10 years is around Rs3.54, which shows that investors having investments in the firms of the oil and gas sector are earning on average Rs3.54 per share. As far as variation in DY is concerned, the range of values from Rs0 to Rs14.10 and the standard deviation of 3.32% show variation in annual DY per share. According to the third column of Table 4, average EPS of all firms under study for the period of 10 years is around Rs26.88, which shows that firms in the oil and gas sector are generating on average Rs26.88 per share. As far as variation in EPS is concerned, the range of values from Rs325 to Rs-159 and the standard deviation of 44%, shows variation in annual EPS.

According to the fourth column of Table 4, the average GDP growth rate is around 3.72 %. As far as variation in GDP is concerned, the range of values from 1.61% to 6.18% and the standard deviation of 1.42% show variation in annual GDP.

According to the fifth column of Table 4, the average INF rate is around 10.24 %. As far as variation in the INF rate is concerned, the range of values from 7.54% to 20.29% and the standard deviation of 4.67 % show variation in the annual INF rate. According to the sixth column of Table 4.1, the average interest rate is around 9.84 %. As far as variation in Interest rates is concerned, the range of values from 5.40 % to 14.50% and a standard deviation of 4 % shows variation in annual Interest rate.

As shown in the seventh column of Table 4, the average MP of all firms under study for the period of 10 years is around Rs 240. As far as variation in the MP is concerned, a range of

values from Rs9.58 to Rs624 and a standard deviation of 160% shows variation in annual MP per share. As shown in the eighth column of Table 4, the average POR of all firms under study for the period of 10 years is around 40%. As far as variation in the POR is concerned, the range of values from 0% to 114% and the standard deviation of 34% show variation in the POR.

As shown in the last column of Table 4, the average RR of all firms under study for the period of 10 years is around 47%. As far as variation in the RR is concerned, the range of values from 0% to 100% and standard deviation of 35% show variation in POR.

Stationary Test

Table 2. Unit Root Test: Test of data stationarity: Levin, Lin & Chu t*

Independent variables	Statistic	Probability Value	Stationary
DPS	-6.02212	0.0000	At Level
EPS	-26.0624	0.0000	At Level
DY	-593.755	0.0000	At Level
POR	-37.0671	0.0000	At Level
RR	-4.29787	0.0000	At Level
Control Variables			
Inflation	-12.7415	0.0000	At Log
GDP	-3.5147	0.0002	At Difference
Interest Rate	-1.81051	0.0351	At Log
Dependent Variable			
MP	-6.93413	0.0000	AT Level

Note: Where DPS is dividend per share, DY is dividend yield, EPS is earnings per share, GDP is gross domestic product, INF is inflation, IR is interest rate, MP is market price, POR is payout ratio, and RR is retention ratio.

According to the Hypothesis of the Unit Root Test, data is considered non-stationary if it has a unit root and if the probability value is insignificant or above .05. It means data is nonstationary. On the other hand, data is considered stationary if it has no unit root, and if the probability value is less than .05, it is considered significant, or it is considered that the data is stationary.

According to Table 2, DPS, EPS, POR, RR, DY, and MP are stationary at level because their p values are less than .05. On the other hand, INF and IR are stationary at log. After all, their p values are less than .05 at log, and GDP is stationary at first difference.

Estimation through Stochastic Model

$$\mathbf{MP}_{it} = \beta_0 + \beta_1\mathbf{DPS}_{it} + \beta 2\text{EPSit} + \beta_3\mathbf{DY}_{it} + \beta_4\mathbf{POR}_{it} + \beta_5\mathbf{RR}_{it} + \beta_6\mathbf{INF}_{it} + \beta_7\mathbf{IR}_{it} + \beta_8\mathbf{GDP}_{it} + \varepsilon_{it}$$

According to the objectives specified in the first section, the author is interested in knowing whether the market price per share depends on the independent variables (DPS, EPS, POR, RR, and DY) and control variables (INF, IR, and GDP) or not. To achieve this objective, a stochastic regression model has been formed as mentioned above that will help to find out the

impact of independent and control variables on the market price per share. As mentioned in section 3 that it is penal data; therefore, OLS regression models were applied first, and then the Husman Test was applied, which guided us to use the Random or Fixed effect model. Results of the Husman Test indicate that the Random effects model is more appropriate to apply compared to the Random effects model.

Comparison of Fixed and Random Effect Models

Table 3. Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	9	1.0000

In order to know which regression model is more appropriate (Fixed or Random Effect), Hausman Test is applied, and the above table (Table 3) indicates that the Random effect model is more appropriate because probability value is more than .05. Now we can comfortably apply the Random Effect model which is the best fit according to the Husman Test and is also in line with Green (2008).

Random Effect Model Results and Hypothesis Testing

Table 4. Panel EGLS (Cross-section random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-38.72589	82.99546	-0.466603	0.6417
DPS	4.655336	0.984073	4.730681	0.0000
EPS	0.404188	0.136620	2.958495	0.0038
POR	0.503258	0.246706	2.215877	0.0095
RR	0.199010	0.195623	1.017314	0.3111
DY	-6.400832	3.292531	-1.944046	0.0443
LINF	28.91447	17.58079	1.644662	0.1028
LIR	-16.78779	25.01006	-0.671241	0.5034
MP	0.621844	0.057460	10.82228	0.0000
DGDP	16.31788	8.473134	1.925838	0.0566
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			60.71182	1.0000

Table 4 presents the results of the Random Effect Model with share price as the dependent variable and DPS, EPS, POR, RR, and DY as independent variables, while controlling for INF, IR, and GDP. All hypotheses were tested at a 5 percent significance level.

Model Specification

Table 5. Effect Specification - Cross-section Random Effect

R-squared	0.7433	Mean dependent var	237.6635
Adjusted R-squared	0.731036	S.D. dependent var	161.7653
S.E. of regression	66.49398	Sum squared resid	508466.6
F-statistic	68.76499	Durbin-Watson stat	1.857922

Prob(F-statistic)	0

As shown in Table 5 above, R^2 shows that the share price, which is the dependent variable, is explained by 74.33% by the independent variables (DPS, EPS, POR, RR, DY) and control variables (INF, IR, GDP).

R^2 is used by statisticians to determine the usefulness of a stochastic model for prediction. In this study, R^2 is on the higher side, which means the model is quite appropriate and useful for prediction. In addition to that degree of explanation of the model and the usefulness of the model are also confirmed by the F-statistic, which is 68, and the Probability (F-statistic) is 0.000000. If F-statistics are above 4 and Probability (F-statistic) is below 0.05, it means the model is fit and useful for prediction.

RESULTS

This section provides a comprehensive analysis of the panel data. At a 5% level of significance, the stationarity of each variable was examined using the Levin, Lin, and Chu t* unit root test. The findings confirmed that the variables were stationary at either level or first difference. Following the stationarity test, the Hausman specification test was conducted to determine the appropriate model for estimation—either the fixed effects or the random effects model. Given that the p-value of the Hausman test was 1.00, the random effects model was selected as the most suitable approach.

Upon employing the random effects model, all eight hypotheses were tested, and their respective interpretations were provided. Diagnostic tests were subsequently performed on the residuals to ensure the robustness of the model. The correlogram analysis confirmed the absence of serial correlation, as all probability values exceeded the 0.05 threshold. This result was further corroborated by the Durbin-Watson test, which yielded a value of 1.85—reinforcing the conclusion that serial correlation is not present in the data.

The regression model explains approximately 74.33% of the variability in the dependent variable ($R^2 = 0.7433$), suggesting a high explanatory power. Additionally, the robustness of the model is affirmed by an F-statistic value of 68, indicating the overall significance of the regression model.

CONCLUSION AND FUTURE DIRECTIONS

This study was conducted to examine the relationship between corporate dividend policy and stock price behavior. Dividend policy represents the strategic decision-making process by which firms determine the proportion of earnings to be distributed as dividends to shareholders versus the amount to be retained for reinvestment. The literature on dividend policy remains

divided between two schools of thought—one asserting that dividend policy significantly influences stock prices and the other contending that it has no impact. The findings of this study support the former perspective, affirming that dividend policy does indeed affect stock price movements.

The dependent variable in this study is market price per share, while the independent variables include dividend per share (DPS), earnings per share (EPS), payout ratio (POR), retention ratio (RR), and dividend yield (DY). Additionally, macroeconomic control variables—inflation (INF), interest rate (IR), and gross domestic product (GDP)—were incorporated to enhance the robustness of the analysis. The study is based on secondary data obtained from firms in the oil and gas sector listed on the Pakistan Stock Exchange (PSE) 100 Index.

The results indicate that four out of the five independent variables have a statistically significant impact on stock price, reinforcing the importance of dividend policy in corporate financial strategy. However, the retention ratio (RR) was found to have no significant effect on stock price movements.

Investors in the oil and gas sector earn an average of Rs3.54 per share, with a dividend yield (DY) variation ranging from Rs0 to Rs14.10 and a standard deviation of 3.32%. Over 10 years, the average earnings per share (EPS) is Rs26.88, with a broad variation (from Rs325 to Rs-159) and a standard deviation of 44%.

The average GDP growth rate is approximately 3.72%, with a range from 1.61% to 6.18% and a standard deviation of 1.42%. The average inflation rate is about 10.24%, varying from 7.54% to 20.29% (standard deviation of 4.67%). The average interest rate stands at 9.84%, with values ranging from 5.40% to 14.50% and a standard deviation of 4%.

The average market price (MP) is Rs 240, ranging from Rs 9.58 to Rs 624 (standard deviation of 160%). The average payout ratio (POR) is 40%, with variation from 0% to 114% (standard deviation of 34%), and the average retention ratio (RR) is 47%, varying from 0% to 100% (standard deviation of 35%).

In the unit root test, DPS, EPS, POR, RR, DY, and MP are stationary at the level ($p < 0.05$), while inflation and interest rates are stationary at the log level, and GDP is stationary at the first difference. Using a stochastic regression model, the market price per share (MP) is analyzed in relation to dividends (DPS), EPS, DY, POR) RR, inflation (INF), interest rates (IR), and GDP. The Hausman Test confirms that a Random Effect model is more appropriate, guiding the analysis of the data effectively.

REFERENCES

Adesola, W. A., & Okwong, A. E. (2009). An empirical study of the dividend policy of quoted companies in Nigeria. *Global Journal of Social Sciences*, *8*(1), 85-101.

Ahmed, N., Hamid, Z., Mahboob, F., Rehman, K. U., Ali, M. S. E., Senkus, P., ... & Skrzypek, A. (2022). Causal linkage between agricultural insurance, air pollution, and agricultural total factor productivity in the United States: pairwise Granger causality approach. *Agriculture*, *12*(9), 1320. https://doi.org/10.3390/agriculture12091320

Akbar M & Baig H. H. (2010) Reaction of Stock Prices to Dividend Announcements and Market Efficiency in Pakistan, *The Lahore Journal of Economics, 15*, 1 (Summer), 103¬125,

Allen, D.E., Rachim, V.S. (1996), Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics, 6*, 175-188.

Asghar, M., Shah, S. Z. A., Hamid, K., & Suleman, M. T. (2011). Impact of dividend policy on stock price risk: Empirical evidence from the equity market of Pakistan. *Far East Journal of Psychology and Business*, *4*(1), 45-52.

Baker, H. K., & Powell, G. (2009). *Understanding financial management: A practical guide*. John Wiley & Sons.

Baskin, J. (1989), Dividend policy and the volatility of common stocks. *Journal of Portfolio Management, 15*, 19-25.

Black, F. (1976). The pricing of commodity contracts. *Journal of Financial Economics*, *3*(1-2), 167-179.

Eriotis, N. (2005). The effect of distributed earnings and size of the firm on its dividend policy: some Greek data. *International Business & Economics Research Journal (IBER)*, *4*(1).

Gordon, M.J. (1963), Optimal investment and financing policies. Journal of Finance, 18, 264-272.

Gordon, M.J., Shapiro, E. (1956), Capital equipment analysis: The required rate of profit. Management Science, 3, 102-110.

Gordon, Myron J. (1959), "Dividends, Earnings, and Stock Prices", Review of Economic and Statistics 41, 95-105

Hamid, K., Usman Khurram, M., & Ghaffar, W. (2017). Juxtaposition of micro and macro dynamics of dividend policy on stock price volatility in the financial sector of Pakistan:(comparative analysis through common, fixed, random, and GMM effect). *Journal of Accounting, Finance and Auditing Studies*, *3*(1), 64-79.

Husnah, H., & Fahlevi, M. (2023). How do corporate social responsibility and sustainable development goals shape financial performance in Indonesia's mining industry? *Uncertain Supply Chain Management*, *11*(3), 1383-1394.

Hussainey, K., Oscar Mgbame, C., & Chijoke-Mgbame, A. M. (2011). Dividend policy and share price volatility: UK evidence. *Journal of Risk Finance*, *12*(1), 57-68.

Imran, K. (2011). Determinants of dividend payout policy: A case of Pakistan engineering sector. *Romanian Economic Journal*, *14*(41), 47-60.

Juhandi, N., Fahlevi, M., Abdi, M. N., & Noviantoro, R. (2019, October). Liquidity, firm size, and dividend policy to the value of the firm (study in manufacturing sector companies listed on the Indonesia Stock Exchange). In *2019 International Conference on Organizational Innovation (ICOI 2019)* (pp. 313-317). Atlantis Press.

Khalaf, B. A. (2022). An empirical investigation of the impact of firm characteristics on the smoothness of dividends. *Corporate Governance and Organizational Behavior Review*, *6*(4), 122-133. https://doi.org/10.22495/cgobrv6i4p11

Kraft, J., & Kraft, A. (1977). Determinants of common stock prices: A time series analysis. *The journal of finance*, *32*(2), 417-425.

Martin, J. D. (1991). *Basic financial management*. Prentice Hall.

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *Journal of Business*, *34*(4), 411-433.

Miller, M. H., & Scholes, M. S. (1982). Dividends and taxes: Some empirical evidence. *Journal of Political Economy*, *90*(6), 1118-1141.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporate finance, and the theory of investment. *American Economic Review*, *48*(3), 261-297.

Pradhan, P., & Shyam, R. (2003). Effects of dividends on common stock prices: The Nepalese evidence. *Radhe Shyam and Pradhan, Prof. Dr. Radhe Shyam, Effects of Dividends on Common Stock Prices: The Nepalese Evidence (May 13, 2003). Research in Nepalese Finance, Kathmandu: Buddha Academics*.Scholz, John Karl (1992), "A Direct Examination of the Dividend Clientele Hypothesis," Journal of Public Economics 49, 261-285.

Shah, S. A., & Noreen, U. (2016). Stock price volatility and the role of dividend policy: Empirical evidence from Pakistan. *International Journal of Economics and Financial Issues*, *6*(2), 461-472.

Williams, J. B. (1938). The theory of investment value. *(No Title)*.

Yusuf, M., Hakim, L., Hendra, J., Kamar, K., Idawati, W., Winarso, E., ... & Fahlevi, M. (2023). Blockchain technology for corporate governance and IT governance: A financial perspective. *International Journal of Data & Network Science*, *7*(2).