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The Impact of Dividend Policy on Shareholder Wealth: A Study of Fertilizer Companies in Pakistan

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Abstract:

This research aims to examine the influence of dividend policy on shareholder wealth within Pakistan’s fertilizer sector over the period from 2015 to 2024. The study focuses on listed fertilizer firms, evaluating the effect of dividend payout ratio, dividend yield, and earnings per share (EPS) on the market price of shares, which serves as a proxy for shareholder value. In this study, market price per share represents the dependent variable (shareholder wealth), while dividend payout ratio, dividend yield, and EPS are the independent variables. Employing panel data analysis techniques, including regression and correlation methods, the study estimates the degree to which these financial indicators predict changes in shareholder wealth. The Panel Least Squares (PLS) approach is applied to determine the strength and nature of the relationship among the variables. The coefficient of determination (R-Square) and F-statistic are used to assess the explanatory power and significance of the model.The findings show that earnings per share (EPS) play a key role in driving shareholder wealth, reflecting how strongly investors value company profitability. On the other hand, the dividend payout ratio didn’t have much impact, and higher dividend yields were actually linked to lower share priceshinting that investors may be more focused on long-term growth than short-term payouts.

Introduction:

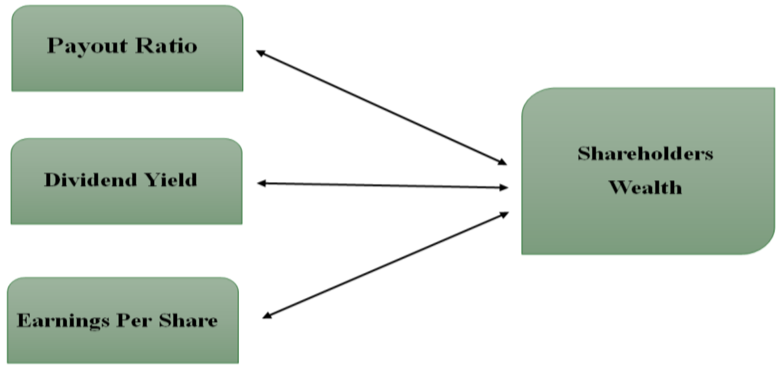
Dividend policy has long stood as a focal point in corporate finance due to its potential to influence investor behavior and corporate valuation. In the context of emerging markets like Pakistan, where investor confidence is sensitive to financial transparency and profitability signals, dividend policy becomes even more critical. This study explores the role of dividend policy in shaping shareholder wealth, specifically within the fertilizer sector of Pakistan over a ten-year period. Understanding how dividend decisions affect market perceptions and investor returns is vital not only for corporate strategists but also for investors seeking stable and rewarding financial engagements. The concept of shareholder wealth maximization lies at the heart of financial management. Managers are consistently faced with the challenge of allocating earnings in a manner that balances immediate investor expectations with long-term corporate sustainability. Among the core financial decisions, investment, financing, and dividend. The latter holds a unique influence over both market sentiment and firm valuation. A firm's dividend policy, essentially the trade off between paying out profits versus reinvesting them, acts as a signal to the market about the company’s performance, stability, and growth prospects. Academic discourse has long debated the relevance of dividend policy in determining firm value. Classical theories such as those by Miller and Modigliani (1961) postulate the irrelevance of dividends under perfect market conditions. However, these assumptions often do not hold in real-world markets, especially in economies characterized by information asymmetry, taxation anomalies, and varying investor preferences. Alternative theories like the bird-in-hand theory, signaling hypothesis, and clientele effect suggest that dividend announcements carry significant informational content, influencing stock prices and thus, shareholder wealth. In Pakistan, particularly in sectors like fertilizer which are closely tied to national food security and agricultural productivity, dividend policies can significantly impact investor sentiment. This industry, being both capital-intensive and policy-sensitive, experiences cyclical profitability influenced by international commodity prices, government subsidies, and seasonal demand fluctuations. Consequently, dividend decisions in such sectors serve as key indicators of financial health and managerial confidence. Dividend-paying firms are often perceived as stable and mature, characteristics highly valued by risk-averse investors. Regular dividend payouts not only reflect operational success but also foster trust in management’s commitment to shareholder interests. Conversely, irregular or absent dividends might signal financial distress or the need for internal reinvestment, potentially causing apprehension among investors. Thus, companies must carefully evaluate the timing and magnitude of their dividend payouts to maintain investor confidence and optimize market valuation. This thesis investigates the relationship between various dividend policy components—such as dividend payout ratio, dividend yield, and earnings per share and shareholder wealth, proxied by market value per share. The primary objective is to empirically assess whether dividend policy decisions have a statistically significant influence on shareholder wealth in the fertilizer sector of Pakistan. Given the economic and environmental importance of this industry, understanding these dynamics can provide meaningful insights for both corporate management and the investing public. Moreover, this study holds practical implications. It offers guidance to corporate managers in designing dividend policies that not only align with internal strategic objectives but also resonate positively with market expectations. Simultaneously, it equips investors with analytical tools to evaluate company performance beyond conventional financial statements highlighting dividend trends as a lens for assessing firm stability and investment viability. The research spans a decade marked by economic volatility, regulatory reforms, and shifts in corporate governance frameworks, thereby allowing for a comprehensive analysis of dividend practices and their consequences. It contributes to the existing body of knowledge by focusing on an under-researched sector in the Pakistani context, complementing broader regional studies with industry-specific findings. By doing so, this thesis aims to fill a literature gap while providing actionable insights for stakeholders across the financial ecosystem.

Literature Review:

The significance of dividend policy in the domain of corporate finance remains widely acknowledged and extensively debated. Numerous studies have sought to establish whether a firm's decision to distribute profits as dividends materially influences shareholder wealth. The general consensus suggests that dividend declarations often signal financial robustness, thereby positively affecting stock prices and, by extension, shareholder wealth. This review synthesizes the diverse perspectives and findings from global and local research, highlighting both theoretical underpinnings and empirical outcomes. Researchers have long emphasized that dividend decisions impact both the financial forecasting of firms and the perception of investors. In many studies, such as those conducted in developed markets like the UK and USA, dividend announcements have been associated with a surge in share prices, which contributes to wealth maximization for shareholders. Notably, studies such as those by Asquith and Mullins (1983), and Azhagaiah and Priya (2008) provide empirical backing for the argument that higher dividend payouts enhance investor confidence and mitigate perceived risk, thereby raising market value. This is especially relevant where dividends are interpreted as a signal of a firm’s profitability and managerial assurance. Lintner’s (1956) seminal work remains foundational in understanding dividend behavior, suggesting that firms adjust dividends based on target payout ratios and past distributions. This tendency to smooth dividends reflects management’s intent to maintain consistent payouts, avoiding abrupt shifts that could unsettle investor sentiment. Other researchers, like Glen et al. (1995), reaffirm the complexity of dividend policy by highlighting the competing needs of reinvestment and shareholder returns. Furthermore, survey-based research, such as that by Joos and Plesko (2004), underscores that managers consider past earnings, expected profitability, and investor expectations when determining dividend strategies. The signaling theory, often cited in this context, proposes that dividend increases convey positive information about a firm's future prospects. Supporting this theory, empirical evidence from studies such as Fama et al. (1969), Healy and Palepu (1988), and Bhattacharya (1979) demonstrate that dividend changes elicit market reactions, as investors interpret these as signals of anticipated earnings growth. However, findings across various studies remain inconsistent. While many studies find positive market reactions following dividend announcements, others suggest that the response varies depending on market structure, investor behavior, and firm-specific factors. An alternative viewpoint is presented through the lens of agency theory. Jensen (1986) argues that dividends serve as a mechanism to mitigate agency problems by limiting managerial discretion over free cash flows. By distributing excess cash to shareholders, firms reduce the likelihood of wasteful spending. This theory is reinforced by empirical work such as Lang and Lichtenberger (1989), who found greater investor confidence in firms with a tendency to overinvest once they announced higher dividends. In emerging markets, such as Pakistan, Bangladesh, Ghana, and Nigeria, recent research also highlights a significant association between dividend policies and market valuation. Studies focusing on the Pakistan Stock Exchange (Nazir, 2010; Mehr-un-Nisa, 2011), Dhaka Stock Exchange (Uddin & Chowdhury, 2003), and Bombay Stock Exchange (Pani, 2011) consistently point to earnings per share, dividend yield, firm size, and leverage as key determinants of dividend policy. These factors, in turn, influence stock prices and investor decisions. Moreover, dividend-related decisions in such contexts often reflect macroeconomic pressures and regulatory environments unique to developing economies. Despite a wealth of research, the effect of dividend policy on shareholder wealth remains unresolved. Some scholars advocate for the relevance of dividends, asserting their impact on reducing the cost of capital and improving firm valuation (Gordon, 1959; Lintner, 1962). Others, such as Miller and Modigliani (1961), argue that under perfect market conditions, dividend policy is irrelevant to firm value. This divergence of views fuels ongoing research, especially in regions where market imperfections make dividend policy a critical strategic tool. This literature review reveals that while a substantial body of evidence supports the influence of dividend policy on shareholder wealth, conclusions vary based on context, methodology, and market dynamics. Theories such as signaling, agency cost reduction, and clientele preferences all offer partial explanations. By focusing on the fertilizer sector in Pakistan, this study aims to extend this literature by providing fresh insights drawn from a critical industry that plays a key role in national economic development and investor activity.

Theoretical Framework:

In this study Shareholders Wealth (Measured via market price per share) is a dependent variable and independent variables include Payout Ratio, Dividend Yield and Earning Per Share.



$$\mathbf{MP = \beta_0 + \beta_1(EPS) + \beta_2(DY) + \beta_3(PR)}$$

Hypothesis:
H_1: There is a significant relationship between the dividend payout ratio and shareholder wealth.
H_2: There is a significant relationship between dividend yield and shareholder wealth.
H_3: There is a significant relationship between earnings per share (EPS) and shareholder wealth.

Methodology:
Population:
The population of this research is Fertilizer industry of Pakistan.

Sample and Sampling Technique:
The sample for this research includes four fertilizer companies from the PSX, selected based on their continue declaration of dividends and availability of financial data for the study period (2015-2024). The companies included in the sample are:

1. Engro Fertilizers Limited
2. Fauji Fertilizer Company Limited
3. Fatima Fertilizer Company Limited
4. Arif Habib Corporation Limited

For the selection process, convenience sampling was used, ensuring that the selected companies are representative of the fertilizer industry while also considering the availability of data for the research.

Data Collection and Data Collection Instruments:
The data used in this research is secondary data, collected from the following sources:

- Pakistan Stock Exchange (www.psx.com.pk)
- Business Recorder
- Annual Reports
- Internet resources related to industry reports and financial statements

The data includes annual financial statements, dividend payout records, stock prices, and other relevant financial metrics for each of the selected companies over the 2015-2024 period.

Results:

Data Stationary:

Panel unit root test: Summary
Series: PRICE
Date: 04/26/25 Time: 18:14
Sample: 2015 2024
Exogenous variables: Individual effects
User-specified lags: 0
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-24.2583	0.0000	4	36
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-15.9534	0.0000	4	36
ADF - Fisher Chi-square	62.0907	0.0000	4	36
PP - Fisher Chi-square	61.5868	0.0000	4	36

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: PAYOUT
Date: 04/26/25 Time: 18:15
Sample: 2015 2024
Exogenous variables: Individual effects
User-specified lags: 0
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-3.47882	0.0003	4	36
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.19468	0.0141	4	36
ADF - Fisher Chi-square	19.0306	0.0147	4	36
PP - Fisher Chi-square	23.5870	0.0027	4	36

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: YEILD
Date: 04/26/25   Time: 18:16
Sample: 2015 2024
Exogenous variables: Individual effects
User-specified lags: 0
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-3.11428	0.0009	4	36
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-1.40723	0.0797	4	36
ADF - Fisher Chi-square	16.5792	0.0348	4	36
PP - Fisher Chi-square	25.1187	0.0015	4	36

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: EPS
Date: 04/26/25   Time: 18:17
Sample: 2015 2024
Exogenous variables: Individual effects
User-specified lags: 0
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-10.4716	0.0000	4	36
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-6.55514	0.0000	4	36
ADF - Fisher Chi-square	44.6718	0.0000	4	36
PP - Fisher Chi-square	47.6529	0.0000	4	36

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Regression Analysis:

Dependent Variable: PRICE
Method: Panel Least Squares
Date: 04/26/25 Time: 18:24
Sample: 2015 2024
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PAYOUT	0.073421	0.131946	0.556446	0.5817
YEILD	-6.184773	1.426444	-4.335797	0.0001
EPS	7.445283	0.753678	9.878602	0.0000
C	49.74584	12.15849	4.091449	0.0003

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.860085	Mean dependent var	73.48350
Adjusted R-squared	0.834646	S.D. dependent var	60.07394
S.E. of regression	24.42829	Akaike info criterion	9.386989
Sum squared resid	19692.46	Schwarz criterion	9.682543
Log likelihood	-180.7398	Hannan-Quinn criter.	9.493852
F-statistic	33.80968	Durbin-Watson stat	1.883198
Prob(F-statistic)	0.000000		

Discussion:

The analysis shows that the dividend payout ratio does not have a notable influence on the market price of shares during the studied period. This indicates that the portion of profits distributed as dividends may not be a key consideration for investors in evaluating stock value within the fertilizer sector. It indicates that investors focus on growth prospects rather than immediate dividend income. Accordingly, the first hypothesis (H_1), which predicted a significant relationship, is not supported by the data. The results reveal that dividend yield has a statistically significant negative correlation with market price. This outcome suggests that firms offering higher dividend yields tend to have lower share prices, which may reflect investor skepticism about future earnings potential. In many cases, elevated dividend yields occur when stock prices decline, rather than due to rising dividends. This behavior aligns with the view that investors in such markets prioritize long-term capital appreciation over short-term dividend returns. The findings indicate a strong and positive relationship between earnings per share and the market price of shares. This confirms that investors view EPS as a crucial indicator of a company's profitability and performance. Hence, the third hypothesis (H_3) is supported, affirming the importance of EPS in shaping shareholder wealth.

Correlation:

	MP	**EPS**	**DY**	**PR**
MP	1	0.8583	0.443	0.3696

EPS	0.8583	1	0.7003	0.3916
DY	0.4437	0.7003	1	0.573
PR	0.3696	0.3916	0.5732	1

Descriptive Statistics:

	MP	EPS	DY	PR
Mean	73.48350	10.97125	10.08450	60.25450
Median	65.45000	9.635000	9.535000	69.10500
Maximum	366.3200	45.49000	20.40000	112.6000
Minimum	24.71000	-2.380000	0.000000	-107.0000
Std. Dev.	60.07394	8.430413	4.978639	41.04830
Skewness	3.182942	1.638583	0.055135	-1.746635
Kurtosis	15.55696	8.255426	2.823014	7.971510
Jarque-Bera	330.3363	63.93221	0.072472	61.53142
Probability	0.000000	0.000000	0.964413	0.000000
Sum	2939.340	438.8500	403.3800	2410.180
Sum Sq. Dev.	140746.3	2771.803	966.6870	65713.55
Observations	40	40	40	40

Conclusion:

This study examined the impact of dividend policy—specifically dividend payout ratio, dividend yield, and earnings per share (EPS)on shareholder wealth, using market price per share as a proxy, within Pakistan's fertilizer sector from 2015 to 2024. The findings show that EPS has a strong positive influence on shareholder wealth, highlighting its importance as a key performance indicator for investors. In contrast, the dividend payout ratio had no significant effect, suggesting that investors are less concerned with dividend and more focused on overall profitability. Interestingly, dividend yield showed a negative relationship with market price, likely due to high yields resulting from falling share prices, not increased dividends. Overall, the results indicate that profitability matters more than dividend distribution for investors. Firms should therefore prioritize sustained earnings growth and financial transparency over aggressive dividend strategies to build investor confidence and enhance market valuation. This research contributes to the limited literature on dividend policy in Pakistan's fertilizer sectors and offers practical guidance for both corporate managers and investors.

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