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An Empirical Investigation of Dividend Policy Determinants in Pakistani Listed Companies: Insights from Agency Theory

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ABSTRACT

This article employs empirical methods to study the reasons affecting the dividend policies of listed companies in Pakistan, revealing findings that contrast with those from foreign studies. While dividend policy is typically used abroad as a tool to mitigate agency costs, in Pakistan, it reflects that the current dividend policy is a product of unresolved agency problems. The unique shareholding structure and governance structure significantly impact the choice of dividend forms. The controlling shareholders of listed companies tend to transfer cash from the listed company through cash dividends; there is wastefulness in retaining funds within the listed companies through stock dividends, which does not maximize shareholder interests. Additionally, the size of the enterprise also significantly affects the choice of dividend form.

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Introduction

The Dividend policy of companies is major concern in financial management. Financial managers of the firm are responsible to develop and formulate a good dividend policy for their companies Arif, A., et al). Researchers have attempted to comprehend the dynamics and factors of dividend policy, but an adequate explanation for the observed dividend behavior of firms remains mysterious (Black, 1976; Allen and Michaely, 2003; Brealey and Myers, 2005). According to Black (1976) "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just do not fit together". Dividends convey information or "signals" to the market about a company's future performance (Bushra, A and Nawazish, M: 2015). For example, a dividend cut may signal that the firm is retaining its free cash flow (FCF) for future expansion or that it is uncertain about its future earnings, prompting it to avoid dividend payouts. Signaling theory suggests that managers cannot arbitrarily cut or increase the dividend rate, as omitting dividends sends negative signals to the market (Bhattacharya, 1980).

Since Miller and Modigliani (1961) proposed the theory that dividends are irrelevant to corporate value, the academic community has continuously challenged the MM theory. After nearly 40 years of development and evolution, dividend theory has been expanded. However, the set of preconditions proposed by foreign theories does not apply to Pakistani listed companies, which have unique dividend practices that require theoretical explanation and exploration. There are many issues regarding dividend policy, and this paper focuses on studying the most basic issues, namely, explaining the reasons behind the formation of Pakistan's current dividend policies. Specifically, the main research questions of this paper include:

(1) What are the determinants of cash dividends?

(2) How do companies choose between cash dividends and stock dividends?

Theoretical Analysis of Dividend Policies of Pakistan Listed Companies

Using agency theory to explain dividend policies is the mainstream view in modern dividend theory research. This theory has strong explanatory power for the existence of dividends and different dividend payment models. Rozeff (1982) and Easterbrook (1984) established models to explain dividend policies. In their models, paying cash dividends is an important means of controlling agency costs. However, in Pakistan, due to specific corporate systems and market environments, the problems caused by agency issues in enterprises are very serious, and the basic conditions for dividends to serve as a tool to control agency costs are not in place. The current dividend distribution situation of Pakistani listed companies is the inevitable result of unresolved agency issues. The following is a detailed discussion:

The Influence of Unique Shareholding Structure on Dividend Policy

A typical characteristic of Pakistani listed companies is the fragmentation of ownership. The largest shareholder typically holds a significantly larger portion of shares, with an average stake that is notably higher than that of the second-largest shareholder. This creates a noticeable gap between the holdings of the top two shareholders.

If the indirect holding ratio of the largest shareholder is considered, this gap is even greater. The largest shareholder of a listed company is in a position that other shareholders cannot compete with. Due to the differences in investment methods and rights within the company, there are conflicts of interest among different shareholders. Dominant shareholders may use their advantages to choose a distribution method that benefits themselves.

Table 1: Comparison of Differences between Major Shareholders and Retail Investors

Aspect	**Major Shareholder**	**Retail Investor**
Investment Cost	Conversion of assets into shares (low), resulting in a high return on investment.	Purchase at market price (high), leading to a low return on investment.
Rights Difference	Controls decision-making but finds it difficult to realize capital appreciation.	Excluded from management, but the stock can appreciate in the market.
Investment Purpose	To raise funds; cash transferred to package the company before listing must be returned.	To earn profit.
Information	In an advantageous position.	In a disadvantageous position.

Due to the injection of quality assets by the holding company during the listing restructuring, some holding companies require large amounts of cash for daily operations, and their business activities cannot cover expenses. The most important source of funds is the dividends from listed companies. Even if it is more beneficial to retain cash within the listed company, the holding company still requires cash dividends to meet its expenses.

For the holding company, there is no incentive to increase the effort, as its efforts are decoupled from the appreciation of its shares. However, its goal is to raise funds from the listed company, which requires meeting relevant legal requirements and supporting certain performance levels. This is a contradiction. Theoretically, the effort level of the holding company should be just enough to meet the minimum conditions for a rights issue. Dividend policy becomes an important tool for balancing effort and fundraising conditions. (1) If there is free cash flow in the listed company, i.e., cash exceeding investment needs, paying cash dividends can reduce management waste and abuse, which is good news for improving operational efficiency. (2) The holding company has superior information about the development of the listed company and can judge how easy it is to meet the conditions for a rights issue. Even if the holding company judges an investment project to have a positive net present value, but due to increasingly stringent rights issue conditions, the listed company cannot meet the conditions, the holding company, needing cash, will also use cash dividends, which actually restricts the future development of the listed company. Because state-owned shareholders are merely agents of state-owned shares, short-term behavior is inevitable when agency issues are unresolved. (3) If the listed company's investment (I) can bring greater future economic benefits, and as long as investment (II) (II < I) is made, the future will meet the conditions for a rights issue, and the company's cash flow will become C (C' > I), from a development perspective, the best cash dividend for the listed company would be (C - I), but the holding company may prefer to issue (C - II). (4) Since investment has a certain payback period, if an investment project is unprofitable or even loss-making in the current period but will be profitable in the future, the existence of this asset will reduce the current return on net assets, affecting the conditions for the rights issue of the listed company. The holding company may prefer to sacrifice future benefits to meet the conditions for a rights issue and issue earnings as cash dividends.

The significance of the above analysis for dividend policy is that cash dividends are an important means of transferring cash from the listed company, and the shareholding ratio of the controlling company significantly affects the choice of dividend form; the larger the ratio, the more likely cash dividends will be chosen.

The Influence of Unique Governance Structure on Dividend Policy

Pakistani listed company's lack an effective internal checks and balances mechanism, with serious internal control issues. Since the interests of managers and shareholders are not entirely aligned, and in the absence of necessary supervision and incentive mechanisms, managers' decision-making goals may not be to maximize shareholder value but rather to maximize their own interests. Such as:

Insider trading

Insider trading involves managers using privileged information to manipulate their own stock or colluding with market players to manipulate stock prices for huge profits. Insider trading is illegal, and both the Company Law and the Provisional Regulations on the Prohibition of Securities Fraud provide penalties for insider trading. However, there are still many loopholes in the current regulation of insider trading, and many listed companies continue to speculate on their own stock. Dividend policy has always been a hot topic for market speculation. Some market players, driven by profit, lobby listed companies to adopt a popular dividend form, promising various benefits to the listed company. The smaller the capital size, the easier it is for speculators to control. Speculating on companies with large capital requires enormous funds, reducing the chances of successful insider trading. Furthermore, there is a strong positive correlation between capital size and the holding ratio of controlling companies. For larger companies, the higher the proportion of controlling companies, the stronger the motivation to transfer funds through cash dividends. Therefore, although management has the motivation to continuously expand the company size, the supervision and restrictions faced by different scales of management differ, resulting in differences in the dividend forms adopted.

Waste of resources by management.

According to corporate value theory, the future return on investment determines corporate value. If the future return on investment exceeds the cost of capital, retaining operating profits within the company as stock dividends will increase corporate value; otherwise, profits should be distributed to investors as cash dividends. However, given the existence of agency issues, companies may not decide to retain profits based on future growth opportunities. As analyzed above, public consumption is an important way for management to satisfy their own utility, and the degree of public consumption is closely related to the size of the company. If management consumes a fixed percentage, the larger the company, the more resources the company can use for consumption. Even if the consumption rate of management shows a marginal diminishing trend, the result is the same. Therefore, managers have the motivation to expand the capital size to expand their control over resources. Distributing profits in the form of stock dividends not only satisfies the preference for stock dividends but also achieves the purpose of expanding control over resources. Thus, when future investment opportunities are not favorable, there will be resource waste.

The implications of the above analysis for dividend policy are:

a. Management has the motivation to expand the capital base, and issuing stock dividends can achieve this goal, allowing them to expand the resources under their control while satisfying shareholders' preference for stock dividends;
b. Management does not set shareholder value maximization as the goal of dividend policy.

Research Hypotheses

This section proposes the hypotheses for this study based on the previous theoretical analysis:

Hypothesis 1 (Cash Transfer Hypothesis): Controlling companies transfer cash through cash dividends.

In foreign countries, distributing cash dividends can reduce management waste and help protect the interests of shareholders. However, due to unresolved agency issues, the behavior of controlling companies may be to transfer cash rather than to control agency costs. The following assumptions can be made:

- The larger the shareholding ratio of the controlling company, the stronger the motivation to transfer cash, and the higher the proportion of cash dividends;
- The smaller the company, the easier it is to meet the conditions for a rights issue and to achieve the purpose of transferring cash through cash dividends;
- Under the same conditions, the smaller the capital size of the company, the smaller the financing costs for the controlling company, and the larger the proportion of cash dividends distributed.

Hypothesis 2 (Resource Waste Hypothesis): Management tends to use stock dividends to waste resources.

Overseas, stock dividends have received extensive attention from investors. For investors, increasing capital base improves the liquidity of their stock. In Pakistan, the reason why stock dividends are welcomed is related to the unique dividend distribution system and market system. However, managers may not decide on dividend policy to meet shareholders' preferences but to satisfy their own desires. The larger the company, the more resources can be wasted, and the stronger the motivation to expand the capital base, which leads to a preference for stock dividends. The following assumptions can be made:

- The larger the company, the stronger the motivation to waste resources, and the higher the probability of stock dividends;
- The higher the proportion of state-owned shares, the weaker the supervision of management, and the easier it is for management to waste resources;
- The higher the proportion of independent directors, the weaker the management's motivation to waste resources, and the higher the proportion of cash dividends distributed.

Research Design

Research methods

To test the proposed hypothesis we will use multivariable regression analysis in this study. Bearing in mind that the external environment for business and relevant policies are continually evolving. Similarly, corporate dividend policies also change frequently, often exhibiting notable characteristics each year. Such as, stock dividends are predominantly popular in some years whereas cash dividends are more common in others, and some years, non-distribution is unusual. It is important to note that different factors may take the lead in different years. Therefore, this study will conduct a cross-sectional analysis by year, rather than a time series analysis.

Sample Selection and Data Sources

The sample is composed of companies listed on Pakistan Stock Exchange (PSX). The sample period is from 2020 to 2023, covering four years. The financial data of listed companies were taken from Pakistan Stock Exchange data base. The relevant information about dividend policy comes from the website of the Securities and Exchange Commission of Pakistan.

This study focuses on companies that have distributed dividends for three consecutive years or more, eliminating newly listed companies and companies that have not distributed dividends for three consecutive years. Due to data limitations, companies listed before 2018 are the main research targets.

Table 2: Definitions of Operational Variables

Variable Name	Measurement	Meaning
Cash Dividend per Share (CD)	Total cash dividends / Total shares outstanding	Explains cash dividends per share
Stock Dividend per Share (SD)	Total stock dividends / Total shares outstanding	Explanatory variable for stock dividends
Stock Dividend Rate (SR)	SR = SD / (SD + CD)	Dependent variable representing the proportion of stock dividends
Earnings per Share (EPS)	Net earnings / Total shares outstanding	Divisible earnings available per share
Accumulated Undistributed Earnings per Share (RELY)	Accumulated undistributed profits / Total shares outstanding	Accumulated earnings available per share
Proportion of Accumulated Earnings to Divisible Earnings (REP)	REP = RELY / (EPS + RELY)	Structure of distributable earnings
Cash per Share (CPS)	Total cash / Total shares outstanding	Liquidity indicator
Debt Ratio (DA)	Total debt / Total assets	Financing capability
Non-Circulating Share Ratio (NPUB)	Non-circulating shares / Total shares outstanding	Indicator of major shareholder control
Net Asset Multiple (PB)	Average monthly price / Net asset per share	Valuation ratio
Future Growth Ability of the Enterprise (based on Gaver and Gaver, 1993)	Common logarithm of total shares outstanding	Enterprise size indicator

Research Models

This study empirically analyzes the questions proposed in the theoretical section in two steps:

Step 1: Examine the determinants of cash dividends and the substitutability relationship between cash dividends and stock dividends.

Step 2: Investigate the factors influencing the choice between stock dividends and cash dividends.

Model 1: Analysis of Determinants of Cash Dividends and Substitutability with Stock

Dividends

$$CD=\beta 0+\beta 1\ CPS+\beta 2\ DA+\beta 3\ NPUB+\beta 4\ EPS+\beta 5\ PB+\beta 6\ SD+\epsilon$$

In this model, the amount of cash dividends per share (CD) is the dependent variable. Earnings per share (EPS) are used as a determinant of cash dividends, rather than last year's accumulated undistributed earnings (RELY), primarily because most companies have a low dividend payout ratio, and these two variables are highly correlated. As previously mentioned, cash per share (CPS), debt ratio (DA), non-circulating share ratio (NPUB), and future growth opportunities (PB) all impact the choice of dividend form and are included in the model for verification. The stock dividends per share (SD) are included to validate the substitutability between stock dividends and cash dividends.

Model 2: Analysis of Factors Influencing the Choice between Cash Dividends and Stock Dividends

$$SR=\gamma 0+\gamma 1\ CPS+\gamma 2\ DA+\gamma 3\ NPUB+\gamma 4\ EPS+\gamma 5\ PB+\gamma 6\ LGTS+\epsilon$$

In this model, the stock dividend rate (SR) is the dependent variable. The proportion of accumulated undistributed earnings to distributable profits (REP) from the previous year is used as an explanatory variable. This is because stock dividends are often greater than earnings per share, and companies may use accumulated undistributed earnings from the past as a source. As discussed in the theoretical section, cash per share (CPS), debt ratio (DA), non-circulating share ratio (NPUB), future growth opportunities (PB), and company size (LGTS) all affect cash dividends and are thus included in the model for verification.

Empirical Analysis

Descriptive Statistical Analysis

The average value of the variables was calculated, and descriptive statistical analysis was performed on the main variables (shareholding ratio, capital size, cash dividends, stock dividends, etc.). The results show that the largest shareholding ratio of Pakistani listed companies is significantly higher than the average level of foreign companies, which indicates that the largest shareholders of listed companies in Pakistan are in an absolute dominant position. However, the capital size is relatively small, which provides convenience for insider trading and cash transfer.

Hypothesis Testing

The test results of Model 1 show that the coefficient of the shareholding ratio of the controlling company is significantly positive, indicating that the larger the shareholding ratio of the controlling company, the higher the proportion of cash dividends distributed by the listed company, which is consistent with Hypothesis 1. The test results of Model 2 show that the coefficient of capital size is significantly negative, indicating that the larger the capital size, the lower the probability of distributing stock dividends, which is consistent with Hypothesis 2.

Table 3: Correlation Coefficients (Average for 2020-2023)

	RELY	NPUB	CPS	EPS	SD	DA	LGTS	PB	REP
RELY	1	-0.04	0.09	0.43	0.35	-0.11	-0.11	0.12	-0.43
NPUB		1	0.10	-0.01	-0.10	0.12	0.37	0.15	-0.03
CPS			1	0.33	0.14	0.11	0.02	0.04	0.00
EPS				1	0.51	-0.05	0.01	0.22	0.33
SD					1	0.05	-0.20	0.19	-0.04

	RELY	NPUB	CPS	EPS	SD	DA	LGTS	PB	REP
DA						1	0.08	0.03	-0.02
LGTS							1	-0.20	0.03
PB								1	0.08
REP									1

Variable Definitions

- **RELY**: Cumulative Undistributed Earnings per Share
- **NPUB**: Non-Circulating Share Ratio
- **CPS**: Cash per Share
- **EPS**: Earnings per Share
- **SD**: Stock Dividends per Share
- **DA**: Debt Ratio
- **LGTS**: Company Size (measured as the logarithm of total equity)
- **PB**: Price-to-Book Ratio
- **REP**: Proportion of Cumulative Retained Earnings to Distributable Profits

Analysis of Factors Determining Cash Dividends

Table 5 presents the analysis of factors determining cash dividends based on Model 1. Overall, the R^2 values were relatively high in 2020 and 2021 but dropped significantly in the following years, reaching only 0.10 in 2023. This decline is attributed to the low proportion of companies distributing cash dividends during these years.

Liquidity: In the annual models, the cash per share (CPS) was significant at the 5% level in 2020, but only at the 10% level in 2023. This indicates that companies paying high cash dividends in these two years had better liquidity. The influence of CPS was not significant in 2021 and 2022, suggesting that cash constraints were not a major factor for dividends in these years.

Debt Levels: In 2020 and 2021, companies with higher debt ratios paid lower cash dividends. This is supported by t-value tests and aligns with the expected signs. The primary reason is that during these years, the national macroeconomic environment was contracting, making it difficult for companies to raise funds. Additionally, severe debt conditions at that time significantly impacted corporate liquidity. As shown in Table 5, CPS was lower in these two years compared to the later years. Hence, debt played a restrictive role in cash dividends during these years. However, in 2022 and 2023, under a more relaxed macroeconomic environment, the impact of debt on dividends was less pronounced. In fact, in 2022, higher debt levels were associated with higher cash dividends. This suggests that in Pakistan, agency issues between creditors and listed companies are not effectively resolved through dividend restrictions, and debt levels mainly affect cash dividends by influencing liquidity. A severe financing environment is a prerequisite for this effect.

Earnings per Share (EPS): This factor has the most significant impact on cash dividends, being significant at the 1% level in all years and showing the strongest explanatory power based on t-values.

Non-Circulating Share Ratio (NPUB): This factor was not significant in any year. There is no significant relationship between NPUB and the absolute amount of dividends. The theoretical discussion suggests that controlling shareholders have an incentive to transfer cash, which is related to earnings. In other words, under a certain earnings distribution, the proportion of cash dividends might be higher, but this does not imply a higher absolute amount of cash dividends. As shown in Table 5, NPUB has a weak correlation with EPS, indicating that companies with a higher NPUB do not necessarily have higher EPS. Thus, NPUB is not a significant factor.

Price-to-Book Ratio (PB): Theoretically, companies with good future growth opportunities are expected to retain earnings for internal development, while those with limited future opportunities should distribute cash to investors. Thus, PB should be negatively correlated with cash dividends. However, empirical results show that from 2021 to 2023, PB was not significant each year; in 2020, it had a positive sign and was significant at the 10% level. This suggests that some companies, even with future growth opportunities, distributed high cash dividends, possibly due to the needs of major shareholders.

Stock Dividends per Share (SD): This factor was significant at the 1% level each year, indicating a substitutive relationship between stock dividends and cash dividends.

In summary, empirical results show that EPS and SD have a significant impact on cash dividends each year. Cash dividends are positively correlated with EPS and negatively correlated with SD, while other factors do not consistently influence dividends. The effect of debt ratio (DA) requires certain conditions, and NPUB and PB do not have consistent effects each year. The impact of CPS varies by year.

Table 4 Analysis of determinants of cash dividends (Model 1)

	Expected Sign	2020	2021	2022	2023
CON	+	0.05 (1.58)	0.04 (1.57)	-0.03 (-1.35)	-0.02 (-1.01)
CPS	_	0.05 (3.26)***	0.01 (1.15)	0.002 (0.25)	0.01 (1.91)*
DA	+	-0.09 (-2.40)**	-0.06 (-1.87)*	0.07 (2.64)***	0.02 (0.96)
NPUB	_	0.03 (0.814)	-0.007 (-0.224)	0.03 (1.16)	0.03 (1.31)
SD	+	-0.77 (-13.22)***	-0.24 (-5.53)***	-0.25 (-8.93)***	-0.16 (-5.39)***
EPS	_	-0.37 (14.04)***	0.32 (15.06)***	0.17 (10.97)***	0.12 (8.40)***
PB		0.005 (1.58)	0.006 (1.44)	0.002 (0.771)	0.001 (1.59)
Adj-Sq		0.54	0.47	0.23	0.12
Number		282	305	509	713

Note: The first column in the table represents regression coefficients, with numbers in parentheses.

- ESP: Earnings per Share
- CPS: Cash per Share
- DA: Debt Ratio
- RELY: Retained Earnings per Share
- PB: Price-to-Book Ratio (replaced by a rank form by year)
- NPUB: Non-public Shares

* denotes significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Analysis of Factors Influencing the Choice between Stock Dividends and Cash Dividends

The empirical results are shown in Table 6. Overall, the R-squared values were higher in 2022 and 2023 but lower in the previous two years, especially in 2020, where it only reached 0.09. The proportion of accumulated undistributed profits per share to distributable profits (REP) showed a significant positive correlation with the stock dividend ratio (SR) in three of the four years, except for 2020, indicating that listed companies used accumulated earnings to issue stock dividends. From the t-values, this indicator had the strongest explanatory power for stock dividends in 2022 and 2023. This is also related to the characteristics of new stock issuance in Pakistan. In 2022, the average size of newly listed companies was the smallest on record, with an average issuance size of only 130.65 million shares. Many companies, before going public, claimed to have substantial accumulated profits (i.e., undistributed profits). Due to declining profitability during the period, these companies used past accumulated earnings to pay stock dividends to meet shareholders' demand for dividends. The presence of accumulated earnings provided the condition for stock dividends to substitute for cash dividends.

Looking at the Price-to-Book ratio (PB), the model shows negative values in the first two years, and although the sign turned positive in 2022, it did not pass the significance test. This indicates that during these years, companies were not retaining funds for future development needs. According to the principle of maximizing shareholder value, this indicator should be positively correlated with stock dividends. However, due to the existence of agency problems, management might have the incentive to expand company size rather than serve shareholder interests, leading to investments in projects with negative net cash flow. The indicator in 2023 matched the expected sign and passed the significance test, possibly due to gradually standardized dividend policies.

Theoretically, the per-share cash holding (CPS) should be negatively correlated with stock dividends, but the empirical results showed that this indicator was not significant in any of the years. This indicates that listed companies, in general, were not restricted by cash availability when issuing stock dividends. Every year, a considerable number of newly listed companies issued stock dividends, and these companies typically had ample cash. Overall, this indicator was not significant in determining the form of dividends. The results suggest that even in the tight monetary environments of 2020 and 2021, companies did not issue stock dividends due to a lack of cash. The reasons for issuing stock dividends can mainly be explained by the following points: first, considering the severe future funding challenges, cash is retained to meet daily operations; second, major shareholders may not have an urgent need for cash; third, during a bullish market, companies may issue stock dividends to meet market demand and engage in insider trading and last but not the least, the most important factor of COVID-19.

The debt-to-asset ratio (DA) was significant at the 5% and 10% levels in 2020 and 2021, respectively, but had no significant impact in the subsequent two years. The primary reason is that during the first two years, economic tightening affected companies' ability to raise funds, and choosing stock dividends could alleviate future liquidity constraints. The equity size (LGTS) indicator should theoretically be negatively correlated with stock dividends. The empirical results showed that this indicator passed the 1% significance level test in three years from 2020 to 2022, strongly proving that smaller companies were more inclined to choose stock dividends. In 2023, as equity financing conditions became increasingly stringent, many companies adopted a strategy of rights issues without distributing stock dividends, and this indicator only passed the 10% significance level test. The size of equity has an important influence on the choice of dividend forms.

The non-tradable share ratio (NPUB) indicator should theoretically be negatively correlated with stock dividends. The empirical results showed that this indicator had negative values across the board, consistent with the theory, but was not significant in 2020 and 2021. In 2022 and 2023, the indicator passed the significance test at the 1% and 5% levels, respectively. This is closely related to market conditions. In the first two years, during a bearish market (as shown in Table 4), management's behavior of retaining funds within the company by issuing stock dividends was restricted because stock dividends often faced discounted trading in a bearish market, making them less popular among investors. Furthermore, in these two years, due to the severe fundraising environment, controlling shareholders had a strong incentive to choose cash dividends, making the impact of non-tradable shares on dividend decisions less evident. However, in the latter two years, with active market trading, the conditions for adopting stock dividends improved. In a bull market, stock dividends were more likely to be well received, as they often resulted in price gains.

However, because non-tradable shareholders could not freely trade their shares and could not realize capital gains, these shareholders tended to prefer cash dividends. Under these conditions, the difference in interests between different types of shareholders became apparent, demonstrating the controlling shareholders' tendency to transfer cash through cash dividends.

Table 5: Analysis of Factors Influencing the Choice between Cash Dividends and Stock Dividends (Model Two)

	Expected Sign	2020	2021	2022	2023
CON		1.97 (5.02)***	1.92 (4.56)***	1.52 (4.63)***	0.66 (1.58)
REP	+	0.06 (0.455)	0.46 (3.38)***	1.29 (13.43)***	1.41 (11.30)***
PB	+	-0.01 (-0.571)	-0.02 (-0.82)	0.01 (1.37)	0.03 (2.74)***
CPS	-	-0.03 (-0.546)	-0.09 (-1.29)	0.04 (1.17)	0.04 (1.07)
DA	+	0.39 ((2.59)**	0.62 (3.81)***	-0.10 (-0.813)	0.03 (0.24)
LGTS	-	-0.30 (-3.67)***	-0.31 (-1.23)	-0.21 (-3.22)***	-0.09 (-0.25)
NPUB	-	-0.26 (-1.49)	-0.23 (-1.23)	-0.53 (-3.71)***	-0.61 (-3.24)***
ADJ-SQ		0.09	0.16	0.44	0.37
Number		258	232	322	282

Note: The numbers in the first column of the table represent regression coefficients, while the values in parentheses are t-values.

- **CON:** Constant term
- **CPS:** Cash per share
- **REP:** Proportion of accumulated retained earnings to distributable profits
- **PB:** Price-to-book ratio
- **DA:** Debt-to-asset ratio
- **NPUB:** Ratio of non-tradable shares
- **LGTS:** Logarithm of company equity size

* represents the 10% significant level, ** represents the 5% significant level, and *** represents the 1% significant level.

Research Conclusions

This study presents conclusions on dividend policies based on research differing from international perspectives. In mature markets, dividend policies are crucial tools for addressing agency problems within firms. However, in Pakistan, severe agency issues significantly impact dividend policies. The study proposed three hypotheses and tested them empirically, confirming that the unique ownership and governance structures of Pakistani listed companies have a significant impact on dividend choices. The findings are as follows:

- Cash Transfers by Major Shareholders: Major shareholders in Pakistani companies engage in transferring cash from the company through cash dividends.
- Wastage of Funds: Companies exhibit wasteful practices by retaining funds in the form of stock dividends.
- Size of the Company and Dividend Choice: Smaller companies tend to prefer stock dividends, whereas larger companies lean towards cash dividends.
- Stock Dividends Not Due to Cash Shortage: The choice of stock dividends is not primarily due to a lack of cash. Instead, the structure of debt influences dividend decisions during economic contractions. The phenomenon of debt covenants restricting cash distributions observed in Western contexts does not apply in Pakistan.

Based on these conclusions, it is suggested that existing listed companies' capital structures and governance mechanisms need improvement. Establishing a rational equity structure, effective checks and balances, and incentive mechanisms are crucial for formulating dividend policies that maximize shareholder interests. Investors should distinguish between different forms of dividends and evaluate whether companies have appropriate investment opportunities and can effectively utilize them. Blindly pursuing a particular type of dividend is not advisable. Management should consider the method of handling stock dividends when setting accounting policies. The use of market price methods can limit stock dividends for low-profit companies, reducing simulation and enhancing the signaling function of stock dividends.

Limitations of the Research

The study has the following limitations

Substitute Indicators for Future Growth Opportunities: In international research, the price-to-book ratio (PB) is commonly used as a substitute indicator for future growth opportunities. Forecasts by financial analysts are also important alternative variables. However, there is no definitive substitute indicator for the Pakistani context. This study used the PB ratio, but its explanatory power requires further validation.

Variability in Dividend Policies: The development of Pakistani listed companies results in significant variations in dividend policies each year. Some factors do not have consistent impacts, making empirical results susceptible to changes in the domestic market environment and institutional frameworks. Further research is needed to understand how these factors and their impacts on dividend policies evolve with changing conditions and regulations.

Interim Dividend Distributions: This study focuses on annual dividend distribution data. Many listed companies also conduct interim distributions. Whether interim distributions have the same implications and influencing factors as annual distributions requires additional research.

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