



Corporate Governance, Dividend Payout, and Ownership Structure: Evidence from Pakistan Non-Financial Listed Firms

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Abstract

The purpose of this research is to analyze the impact of corporate governance on the dividend payment ratio of companies listed on the Pakistan Stock Exchange that are not financial institutions. Based on the findings, it is clear that some characteristics or factors act as buffers in business and economic settings. Therefore, the dividend payment ratio is capped by the ownership structure. Examining the connection between corporate governance, ownership structure, and dividend payout ratio is the primary goal of this study. In addition, it stresses the importance of corporate governance features including separate roles for the CEO and the board of directors. The impacts of the usual accounting variables are investigated by means of a panel data analysis. For this analysis, we utilize data on private companies from 2016–2020. These results highlight the growing significance of independent boards made up of non-resident members who distribute a heftier dividend. There is a negative correlation between board size and dividend payout when independent directors are included. In addition, there is substantial evidence that having two CEOs in the top five stockholder boards has a detrimental effect on dividend decisions at the 5% significance level. The ownership structure also played a moderating role, with certain results contradicting the existing research but yet being plausible given the current state of affairs. Our research adds to the existing body of knowledge in two key ways: We start by taking a long-term look at corporate governance and the dividend payout ratio in the non-financial sector, and we end by using the ownership structure as a moderator.

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1 Introduction

Corporate governance depends on ownership structures, which affect managers' incentives and efficiency. Equity distribution refers to the identification and voting power of equity owners. The Corporate Governance structure is crucial because it determines managers' incentives to operate for economic efficiency (Jensen & Meckling, 1976a). Effective institutional ownership (IO) pressure increases dividend payout ratios in those corporations. The dividend payout (DIV) ratio implies agency conflict between top-level external and internal shareholders. Insider managers seek personal gain and appealing net present value initiatives over shareholder distribution. Due to their majority ownership and management voting rights, institutional ownership also affects dividend payout ratios. The earnings trend model⁴ (SED) shows that institutional ownership and dividend payout ratios are positively correlated (Short et al., 2002).

Corporate governance increases shareholder value to safeguard stockholders. A company's stock distribution—its ownership structure—encourages management to adopt steps that boost efficiency. It's important to note that ownership structure affects the physical distribution of equity and each shareholder's control over the organization. "Control" refers to a board's power to make strategic decisions for a corporation. Effective company governance may affect strategic decisions like money and corporate events. The board's best composition depends on the ownership structure's significance (Desender, 2009).

Since owners don't run businesses, separating control and ownership makes sense. When ownership is centralized, the same conflicts arise. Controlling shareholders may act against

⁴ Since its inception in July 1974, Ford's Earnings Trend research has been effective in predicting short-term stock price performance in part because it serves as an early indicator of changing earnings momentum.

minority owners' interests while making decisions. Agency theory, ownership structure, and corporate governance explain how corporations fund themselves. Pakistan is a growing market with a 2002 SECP code of corporate conduct. Due to the country's late adoption of the rules and the concentration of ownership, corporate processes' practicality is still questioned, therefore an evaluation of ownership structure's effect on dividend payment ratio is essential. Dividend payout ratio is the percentage of net earnings paid to owners. The corporation keeps the rest of investor dividends for development. Dividend payout ratios will help agencies indicate stockholders on the firm's evaluation. Business ownership determines dividend payout ratio. Ownership structure gives information on two crucial elements that affect market efficiency. First, it will show stockholders' risk diversification. Second, it will discuss prospective agency concerns during the corporation's management.

The "dividend puzzle" concerns firm dividend payouts and raises many research questions. One is company finances. Dividends affect publicly traded firms' value and investor recommendations (Carleton et al., 1998). The interaction between firm dividend policy and emerging market operations, transfers, and risk compounds the dividend problem. Dividend payouts allow primary market investors to monitor firms' operations and performance, ensuring stock market stability (Griffin et al., 2010). Dividends reduce agency issues and increase shareholder value (Gul et al., 2012) Company governance makes dividend payout decisions critical. Despite the declining value of dividend payments in agency problem management, because of declining stock transaction costs, increasing equity choices for managers who value capital gains over dividends, and advancements in corporate governance technology, the "disappearing dividend puzzle" remains a pressing concern (Shapiro et al., 2015). This approach explains managerial incentive in a world where agency costs are decreasing (Bahreini & Adaoglu, 2018).

Traditional accounting characteristics including return on assets, business size, leverage, and earnings per share influence

the firm's dividend policy. Corporate governance variables like board independence, board committees, board structure, and CEO duality join these standard accounting variables. There are several ownership structures, including managerial ownership, institutional ownership, and ownership concentration. Managerial, institutional, and concentrated ownership raises a separate challenge. According to research, dividend decisions adversely affected liquidity, growth, risk, and leverage. However, historical dividend patterns, present profitability, and firm size positively affect dividend decisions. (Al-Ajmi & Abo Hussain, 2011; Cristea & Cristea, 2017; John, 2013; Kania & Bacon, 2005; Mehta, 2012b; Mohammad Reza Pourali, 2019). Dividend payout and corporate governance literature demonstrates that board independence, institutional shareholding, CEO duality, and concentration of ownership improve dividend decisions (Abdelsalam et al., 2008; Boyd, 1994; Fama & Jensen, 1983; Farooq & Jabbouri, 2015; Ghosh & Sirmans, 2006; Mehar, 2003; Ullah et al., 2012). Contrary to these findings, however, (Gugler, 2003), (Mansourinia et al., 2013), and (Ullah et al., 2012) found a adverse correlation among state ownership, CEO duality, and dividend distribution.

The study investigates how ownership structure modifies dividend payout policy and corporate governance. This study will examine traditional and atypical accounting variables affecting dividend payment policy and corporate governance in Pakistan's listed non-financial industry, with ownership structure as a moderator.

Minority shareholders are disregarded in Pakistan since dividends are not mandated. Companies' financial actions should benefit shareholders after the 2002 Corporate Governance Code. strong growth and voluntary payouts lead to intense principle-agent conflict in Pakistani enterprises, making dividend policy attractive. If management is not supervised, they can exploit shareholders by not paying them and investing in non-profitable projects for their benefit. By studying the connection between dividend payout ratio and corporate governance for non-financial companies listed on the Pakistan Stock Exchange, this study hopes to fill a gap in the existing literature.

The study has five chapters. The first chapter covers corporate governance, dividend policy, and ownership structure. The second chapter reviews literature. This study's third and fourth chapters cover data, factors, and methods for proper research outcomes. Conclusions, Policy Recommendations, and Future Research comprise chapter six.

2 Literature Review

The Board's size has been considered a significant factor affecting managerial control. Research shows that board size affects dividend policy. Board size has two unique effects, notwithstanding prior reports. Larger boards let managers specialize. Because specialization improves monitoring, lower rewards are needed to sustain it. Signal theory favors large board sizes, which will enhance market signaling. Thus, dividends need not be low to keep agency costs down. Coordination issues make huge boards less effective (Jensen, 1993).

Duality determines the board's power structure and efficacy. The same CEO heads the board and the company, which hinders the board's ability to help the CEO. The CEO will influence the board of directors more due to insufficient internal control. Board independence weakens. The CEO can now pursue his interests but not those of all shareholders. When the chairman and CEO have separate duties, the board of directors' control mechanisms fail (Baliga et al., 1996).

Board structure emphasizes board independence. According to (Gregory, 2000) director's independence is necessary for the proper functioning of an organization's internal control and monitoring systems. All three committee positions should go to an independent board director. He must do this role to ensure financial statement disclosures and company internal control. Independent directors are crucial for regulating and disciplining management, especially when they have no financial stake in the organization. When managerial controls fail, shareholders use dividend policy.

The largest shareholder, family influence, and business impact have been studied extensively (Changjiang & Xianhua, 2005; Connelly et al., 2010; Dai, 2007). According to research

conducted by (Thanatawee, 2013) companies that have the highest proportion of institutional ownership pay larger dividends than those that have other types of ownership, with the exception of Chinese companies, which pay dividends that are lower than both the government and the largest shareholder-owned corporations. According to (Al-Najjar & Kilincarslan, 2016) factors such as dividend payments were not affected by minority shareholder status, family engagement, or local financial institutions, however factors such as foreign ownership and state ownership did. In this scenario, all ownership concerns result in a reduced dividend ratio and yield.

2.1 Corporate governance and dividends payouts

Theories imply outside block holders monitor (Shleifer & Vishny, 1986). In developing countries like India, where insiders control the board of directors, like FRC⁵. Foreign investors who manage a company are good monitors (Majumdar & Chhibber, 1999). Foreign investors better represent institutional investing than development finance institutions (Khanna & Palepu, 1999). According to agency costs (Easterbrook, 1984) shareholder preferences as executed by management determine dividend policy.

Board structure, managerial ownership, government ownership, board size, and outside directors are correlated (Mak & Li, 2001), Having many CEOs is a direct result of having multiple block holders. (Booth et al., 2002) investigated whether or not there were agency conflicts in company internal monitoring controls. In a 1999 Fortune Custom Ranking research (Booth et al., 2002), 100 of the largest non-financial companies found that outside directors negatively affect management ownership and CEO duality. (Micah, 2006) and Ghosh & Sirmans (2006) found a strong correlation between dividend payout and CEO duality. CEO/Chairman roles in Nigeria hurt dividend decisions, but not in South Africa or Ghana. (Mansourinia et al., 2013) observed no association among CEO duality and dividend payout.

⁵ Non-govt Indian company incorporated in 1985 involved in variety of wholesale goods.

According to (Bekiris, 2013) who studied a sizable sample of Greek-listed companies to determine whether or not the presence of outside directors was correlated with block holder ownership, It would appear that chief executive officers who hold the position of CEO and chairman of the board have less shareholder representation and fewer independent directors. The study finds that smaller boards are more common in firms with more minor external block holder ownership and fewer share owners. In comparison, larger boards are associated with more external block holder ownership and share ownership and independent boards are more common in companies with high external block holder ownership. These results indicate that the composition of a company's board of directors is strongly influenced by its ownership structure.

H1: Corporate governance (Conventional & unconventional) significantly affect dividends payouts policy

2.2 The direct effect of ownership structure

Company dividend distribution and ownership structure policies in developing nations like India are poorly researched. Corporate expropriation in Europe and Asia was quantified. Institutional ownership correlated positively with dividend, but management ownership correlated negatively. UK enterprises were analyzed. (Narasimhan & Vijayalakshmi, 2002), demonstrated a significant link between the composition of company ownership and dividend distributions in the manufacturing sector. Promoters did not affect dividend payout for the 1997–2000 research period.

A mature board of directors selects successful management teams, which improves corporate performance (Kang et al., 2007). The authors found that older or retired executives are preferred for governing body non-executive posts over less experienced or younger people. Dividends, stock ownership arrangements, and board governance features were linked to corporate success in Malaysian listed corporations (Sulong & Nor, 2008). Institutional ownership and independent director participation increased profitability in 81 European enterprises. In these 81 European enterprises, profitability does

not correlate with inside director percentage or managerial ownership level.

However, (Fauzi & Locke, 2012) showed that New Zealand stock exchange-listed companies vary in board committees, board size, and managerial equity ownership. Larger boards supervise firms better. Other things being equal, non-executive directors, female board directors, and a large concentration of ownership might affect a company's financial success. Dividends were indirectly related to managerial ownership, but foreign and institutional ownership were directly related (Ullah et al., 2012). Foreign ownership increases dividends, which emigrate shareholders' money. Demographic Board Diversity positively correlated with Firm Performance (Ararat et al., 2015). (Kagzi & Guha, 2018) noted how important board diversity is for research.

Thanatawee (2013) observed that Shanghai Stock Exchange-listed Chinese companies had dividend policies based on ownership structure. He found that more extensive shareholder holdings, majority shareholder holdings, and government ownership increased dividend payout percentage, while institutional ownership decreased it. The dividend payout ratio predicts expected correlations between dividend policy and ownership structure.

H2: Ownership structure significantly affect dividends payouts policy

2.3 Influence of ownership structure as a moderator

In small and medium-sized businesses, ownership structure affects financing decisions in various ways, including social, behavioral, and other factors (Romano et al., 2001). (Dhanani, 2006) examined stock exchange, industry, gearing ratio, and development prospects. Private, institutional, and management ownership were variables. The study found that all factors affected dividend decisions.

The capital-ownership structure relationship was meaningful (Moon & Tandon, 2007) Leverage levels also correlate with Managerial ownership and negatively with

Institutional ownership. Directors prefer debt over stock. Institutional investors limit debt financing to decrease agency expenses. Since corporate governance is becoming more essential, (Driffield et al., 2007) Leverage levels correlate with Managerial ownership and negatively with Institutional ownership. Directors prefer debt over stock. Institutional investors limit debt financing to decrease agency expenses. Since corporate governance is becoming more essential.

According to (Fauzi & Locke, 2012) business success is affected by board size, board committee makeup, and managerial ownership. It is argued that larger boards of directors increase supervision. Executive directors help with management and strategic planning, however, the organization is negatively impacted by non-executive directors, female board members, and concentrated ownership. (Sulong & Nor, 2008) dividends, ownership structure, and board governance affect Malaysian publicly traded firm performance. Thus, (Conger et al., 1998) successful judgments can only be made by directors with well-organized time. (Laksmama, 2007) agrees that regular meetings with a methodology can create a well-functioning board. He shows that directors' time may be a proxy for their action.

Previous research has found that Directors' salary and stock ownership have been linked inconsistently. A study conducted by (Aswadi & Rahman, 2009) looked at 434 firms that were listed on the Malaysian Stock Exchange between the years 1999 and 2003. They discovered a negative association between institutional ownership and director salary, which suggests that the effectiveness of institutional monitoring is responsible. (Huafang & Jianguo, 2007) an OLS regression model was used to examine board composition, ownership structure, and voluntary disclosure. They found that block holders with more equity and fixed-income securities disclose more. Legal-person, management, and state ownership are unrelated to openness. CEO duality decreases business openness, while independent board members increase it. Papers from larger corporations disclosed more.

H3: Companies with Ownership structure has significant role in managing Corporate governance (Conventional & unconventional) in dividends payouts policy.

2.4 Conclusion

According to historical research, dividend decision is negatively correlated with liquidity limits, risk, growth, liquidity, and leverage. However, historical dividend patterns, present profitability, and firm size positively affect dividend decisions. Based on dividend payout and corporate governance literature, institutional holdings, board independence, and ownership concentration positively affect dividend decision making. However, state-owned enterprises, CEO duality, and dividend distributions were statistically significant but unfavorable.

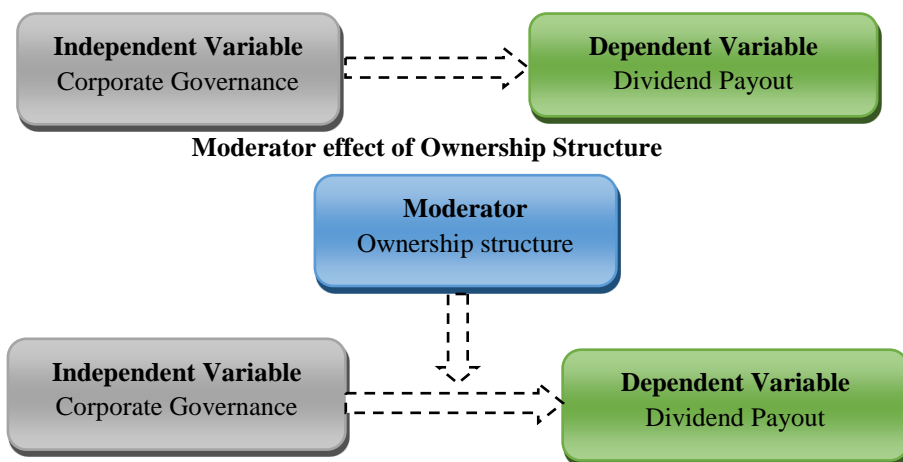
The association between dividend payout (DIV) ratio and corporate governance, moderated by ownership structure, needs further study. The empirical effect of corporate governance on dividend payout DIV ratio for non-financial enterprises must be examined with ownership structure as a moderator. Corporate governance also affects dividend payout for non-financial corporations. CEO duality affects dividend policy differently in emerging markets, according to studies. CEO duality moderates. Finally, when dividends are moderated, literature on CEO duality, board size, and board meeting frequency is weak.

The dividend payment (DIV) ratio may be an indicator of the quality of company management, and the ownership structure may moderate the link between the two. The empirical influence of corporate governance on the dividend payout DIV ratio for non-financial companies needs more study, including the introduction of the ownership structure as a moderator. In addition, research into the impact of corporate governance on dividend payments from companies outside the financial sector is necessary.

The study found that the effects of CEO duality on dividend policy varied across different emerging markets. In particular, the effect of having a co-CEO is dampened. Finally, when dividends are moderated, there is a gap in the literature concerning the use of moderation to discover a connection

between CEO duality, board size, and board meeting frequency. Corporate governance in Pakistani businesses has improved as a result of the availability of the good corporate governance assessment index for evaluation. Second, institutional investors hold a much larger percentage of Pakistani companies listed on the stock market than do managers.

Figure 1:
Proposed Conceptual Framework
Direct Relationship between Dividend payout and Corporate Governance



3 Variable description and research methodology

Table 1:
Variable Description

Variable		Description
DIV	<i>Dependent Variable</i>	Dividends Payout Ratio (cash dividend to profit / loss after tax)
IO	<i>Moderator</i>	Institutional Ownership (The firm's shares held by institutions in percentage)
OC	<i>Moderator</i>	Concentration of ownership (A dummy variable; set it to one if the largest shareholder owns more than 50% of the company's shares and zero otherwise.)
T5	<i>Moderator</i>	Those five owners who own the majority of the company's stock are considered the "top five."
MO	<i>Moderator</i>	Managerial Ownership (Percentage of the

Company Owned by These Individuals and Their Immediate Families)		
Corporate Governance (unconventional)		
NB	<i>Independent variables</i>	The total (number of board committees)
BS	<i>Independent variables</i>	Board size (the total number of board members)
CEO	<i>Independent variables</i>	CEO Duality (a dummy equal to one if the CEO is also the board chair and zero otherwise)
BI	<i>Independent variables</i>	The ratio of Board independence (The number of independent board members on the corporate board) and Total Board Members
NED	<i>Independent variables</i>	The ratio of total (number of nonexecutive directors on the board) and Total Board Members
ED	<i>Independent variables</i>	The ratio of total (number of executive directors on the board) and Total Board Members .
Corporate Governance (conventional)		
FL	<i>Independent variables</i>	Proxy variable (ratio of total assets current, previous year to average current, last year shareholders equity)
EPS	<i>Independent variables</i>	(profit / loss after tax to no. of shares)
ROA	<i>Independent variables</i>	(Profit/loss after tax as a % of total assets)
FA	<i>Control Variables</i>	In this analysis, we adjusted for firm maturity by using the listing age (AGE) rather than the year of incorporation as a proxy for firm age.
FS	<i>Control Variables</i>	The natural logarithm of total assets
TAN	<i>Control Variables</i>	Ratio of fixed assets to total assets)

From 2016 to 2020, 250 publicly listed corporations on the Pakistan Stock Exchange (PSX) were analyzed in this study by collecting data from the PSX Database. Companies outside the financial sector were not considered because their capital

structures and regulatory environments differ. There are 1250 observations, or firms, in the sample. To further mitigate the effects of outliers and data collection issues, we additionally winsorized all variables at the 5th and 95th percentiles.

3.1 Variable Description

3.1.1 Dividend Payout

The dependent variable quantifies the company's dividend policy as $DPS/EPD = \text{Dividend per share} / \text{Earnings per share}$.

3.1.2 Ownership Structure

In this investigation, we employ four distinct types of ownership indicators. The percentage of total shares held by institutions is used to quantify institutional ownership. The percentage of a company's equity that its managers and directors own is denoted by the acronym MO, which stands for "managerial ownership".

3.1.3 Corporate Governance

In this analysis, we employ four separate indicators of board governance to draw conclusions. The number of board members, the composition of the board, the authority of the board, and the existence of board committees are all factors to consider. The term "board independence" refers to the percentage of a company's board that consists of "independent" individuals. A company's "board size" is the total number of its board of directors. The dummy variable "duality" takes the value 1 if at least one CEO is also the board chairman, and the value 0 otherwise.

3.1.4 Econometric Model Specification:

Panel data, a hybrid of "cross-sectional" and "time-series" data, provides the present investigation's basis. There is less collinearity, more information, and greater efficiency when using panel data. The intercept behaviors as well as the three core tactics that are employed for panel data are discussed in these models. Examples of these methodologies are the common effect model, the fixed effect model, and the random effect model. One other name for the pooled OLS technique is the

common Effect Model. In this model, the slope and the cross-sectional intercept are both fixed.

3.1.5 Fixed Effect Model

Fixed Effect Model (FEM) is used when the individual-specific intercept and other regressors may be associated.

$$\text{Cov}(\alpha_i, X_{i,t}) \neq 0 \quad (1)$$

To address the issue of heterogeneity, this model employs fixed dummies.

Here is the equation to represent the fixed effects model

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \dots + \beta_k X_{kit} + \alpha_i + u_{it} \quad (2)$$

In this equation, u_{it} is a cross-sectional and time-series error term, β_0 is the intercept, X_{1it} and X_{2it} are the first and second independent variables, α_i is the unobserved heterogeneity, and Y_{it} is the dependent variable. In FEM, α_i is an intercept that is unique to each person.

3.1.6 Financial Data Estimation

We used panel regression modelling with ownership structure as moderators to study corporate governance and dividend disbursements. The firm's ownership structure moderates dividend policy and CG.

To test the given hypotheses, we refer to (Zhang & Kyaw, 2017) in constructing the general form of the dynamic panel regression⁶ model, stated as:

$$Y_{i,t} = \beta_0 + \beta_1 Y_{i,t-1} + \beta_2 X_{i,t} + \mu_{i,t} \quad (3)$$

The expended model for this study is :

⁶ We employed OLS and fixed effect and quintile regression initially and to keep these sections as brief as possible we only presented endogeneity adjected regression models namely Generalized method of movement.

$$D_{it} = \alpha_0 + \sum_i \alpha_1 CG_{it} + \sum_{it} \alpha_2 OS_{it} + \sum_{it} \alpha_3 Control_{it} + \varepsilon_{it} \quad (4)$$

$$D_{it} = \alpha_0 + \sum_{it} \alpha_1 OS_{it} * CG_{it} + \varepsilon_{it} \quad (5)$$

$$D_{it} = \alpha_0 + \sum_i \alpha_1 CG_{it} + \sum_{it} \alpha_2 OS_{it} + \sum_{it} \alpha_3 OS_{it} * CG_{it} + \sum_{it} \alpha_4 Control_{it} + \varepsilon_{it} \quad (6)$$

The fixed and random-effect models are both viable options for estimating data panels. To compare the Random Effect model to the Fixed Effect model, the F test must be run. This was done by independently calculating a random effect model with equal constant terms and a fixed effect model with different intercepts. The F test is then run to determine if the random effect model is statistically indistinguishable from the fixed effect model. The Hausman test evaluates the relative merits of fixed-effects and random-effects models. Assuming the stochastic error term and explanatory factors are unrelated, these statistics have the same asymptotic distribution as chi-squares. In this case, the random effect model is preferable to the fixed effect model. According to the numbers, fixed effects models perform better than random effect ones.

3.1.7 Choice among FEM and REM through “Hausman Test”

The literature lists several criteria for choosing between fixed-effect and random-effect models. This study uses Hausman (1978)'s statistical test to choose between models. This statistical test outperforms all others.

Hausman statistical test for "fixed effect" and "random effect" selection follows the following paradigm.

$$w = (\tilde{\beta}_{FEM} - \tilde{\beta}_{REM})' [v(\tilde{\beta}_{FEM}) - v(\tilde{\beta}_{REM})]^{-1} (\tilde{\beta}_{FEM} - \tilde{\beta}_{REM}) \approx \chi^2 \quad (7)$$

The above algorithm statistically compares both models to choose the best. The selection criteria use chi-square statistics and the model with more consistent findings.

3.1.8 Granger Causality

Granger (1969) states that if X causes Y, X changed before Y. X can then forecast Y. If earlier estimations of Y recur, include previous estimates of X as a self-contained clarifying variable to improve the relationship's clarity. X affects Y. Because Y produces X, X can be characterized similarly. The incorrect hypothesis for statistically testing X causing Y is "X does not cause Y." Invalid hypothesis proves X and Y are not causally connected. Granger causality is supported by eliminating null speculation.

4 Data Analysis and Results

4.1 Descriptive Analytics

Statistics and correlation coefficients for the study variables are presented below. Measures of central tendency (mean, standard deviation, and percentiles) are presented in Table 2. A slightly greater percentage of companies (31% between 2016 and 2020) paid dividends than the value reported by (Abdelsalam et al., 2008).

Our preliminary evidence supports emerging-market enterprises' dualism. CEOs and chairpersons lead 4.9 percent of firms. (Hewa Wellalage & Locke, 2011) and (Elsayed, 2007) found dualism in emerging economies. This proportion is lower than (Faleye, 2007; Sindhu et al., 2016) for wealthy countries. East Asian nations have 7.968% dual leadership.

Table 2 shows that 25% of our sample's enterprises had highly concentrated ownership structures. Concentration averages 327.2 percent of the sample. Last, the study's sample includes small and large firms (mean and SD of 15.42 and 1.95 for firm size) and low- and high-profit enterprises (mean and SD of 3.512 and 21.29 for ROA).

Table 2:
Descriptive Statistics

Variable	Mean	Median	Max	Min	Std. Dev.	Obs
DIV	0.316	0	31.6	-6.4	1.266	1250
ED	0.226	0.25	0.625	0	0.100569	1250
EPS	14.90	2.705	659.8	-166	55.63	1250
FA	40.77	36	153	6	18.07	1250

FL	2.308	2	72.79	-45.9	5.821	1250
FS	15.42	15.47	20.57	8.785	1.95	1250
IO	34.69	24.79	98.28	0	29.59	1250
MO	28.02	18.53	99.98	0	29.36	1250
NB	2.334	2	8	1	0.844	1250
NED	0.559	0.57142	1	0.14285	0.133774	1250
OC	0.272	0	1	0	0.445	1250
ROA	3.512	2.648	337.9	-160	21.29	1250
T5	63.94	67.14	98.91	4.98	20.04	1250
TAN	54.17	53.6	99.99	0.01	23.64	1250
CEO	0.049	0	1	0	0.216	1250
BS	7.863	7	14	5	1.35	1250
BI	0.214	0.14285	0.7692	0	0.124711	1250

Note: For non-financial enterprises traded on the PSX Pakistan between 2016 and 2020, this table summarizes descriptive statistics for the variables used in the model. The allocated yearly values for the variables are as follows: Payment of Dividends (DIV), Executive directors(ED), Earning per share(EPS), Firm age(FA), Firm leverage(FL), Firm size(FS), Institutional ownership(IO), Managerial ownership(MO), Number of Board meetings(NB), Non-Executive Directors(NED), Ownership concentration(OC), Return on assets(ROA), Top 5 shareholders (T5), Tangibility(TAN), CEO duality(CEO), Board size(BS, Board independence(BI).

4.2 Correlation Statistics

Table 3 shows Pearson correlation coefficients and degrees of significance for research components. The Pearson correlation coefficient between independent variables should not surpass 0.80 (Alan & Duncan, 1997) to avoid multicollinearity.

There are several intriguing links. At 5%, dividend payout and yield have positive and statistically significant connection coefficients. Second, all board characteristics except Institutional Ownership have a substantial positive link with dividends. Third, DIV negatively correlates with variables except TOP_5 Shar and managerial ownership (Sindhu et al., 2016). These findings suggest that our theoretical predictions are correct. Unlike size and profitability variables (FS and ROA), CG and control variables are negatively and insignificantly linked with dividend distributions.

Table 3:
Correlation Matrix

	DIV	ED	EPS	FA	FL	FS	IO	MO	NB	NED	OC	ROA	T5	TAN	CEO	BS	BI
DIV	1																
ED	0.026	1															
EPS	0.004	0.006	1														
FA	-0.003	0.031	0.27	1													
FL	0.162	0.049	0.01	-0.014	1												
FS	-0.033	-0.036	0.18	0.134	0.107	1											
IO	-0.05	-0.17	0.17	0.058	0.042	0.365	1										
MO	0.028	0.19	-0.1	-0.060	-0.012	-0.284	-0.632	1									
NB	0.081	-0.14	0.06	0.066	0.014	0.399	0.162	-0.22	1								
NED	-0.02	-0.3	0.17	0.018	-0.010	0.14	0.15	-0.134	0.093	1							
OC	-0.02	-0.11	0.14	0.123	0.006	0.273	0.343	-0.304	0.146	0.04	1						
ROA	-0.01	-0.008	0.35	0.025	0.002	0.066	0.078	-0.011	0.049	0.078	0.024	1					
T5	-0.01	-0.07	0.10	0.129	0.001	0.145	0.279	-0.051	0.055	0.034	0.558	0.060	1				
TAN	0.027	-0.024	-0.21	0.020	0.006	-0.05	-0.224	0.126	-0.13	-0.06	-0.04	-0.195	-0.16	1			
CEO	-0.02	-0.06	-0.04	-0.058	-0.037	0.03	-0.053	-0.049	-0.024	0.146	0.095	-0.033	0.058	0.194	1		
BS	-0.01	0.158	0.24	0.179	0.066	0.303	0.07	-0.118	0.292	0.526	0.033	0.064	-0.01	-0.15	0.026	1	
BI	0.005	-0.17	0.01	0.168	0.057	0.22	0.025	-0.127	0.337	-0.281	0.074	-0.008	-0.01	-0.08	-0.09	0.478	1

4.3 Unit root test result

Table 4:

Unit root test

Variables	LLC Test	PCIPS Test
DIV	-82.5672***	-11.9765***
EPS	-19.4734***	-3.81331***
FA	-69.3496***	-1370.71***
FL	-77.6069***	-13.5944***
FS	-92.2357***	-14.7265***
IO	-245.803***	-52.0443***
MO	-0.02020	-310.485***
OC	-101.097***	-15.5284***
ROA	-14.4256***	-3.35514***
T5	-0.01466	-58.9463***
TAN	-75.2441***	-13.3185***

Panel unit-root checks regression stationarity. The table shows Levin-Lin-Chu test results assuming cross-section units are independent. The second-generation PCIPS test solves cross-sectionally independent problems using sample cross-sectional dependence unit root results. Order zero integrates significant and steady variables.

4.4 Regression Analysis and Discussion

Panel data analysis uses random, fixed, and random effects plus fixed effects. Two statistical tests identify the best model. The first method compares fixed-effect with random-effect models.

Multicollinearity excluded non-executive directors from the first linear model and the interaction term BI from the second and third models. Use a fixed-effect or random-effect model to choose the test. The Redundant Fixed effect test is significant for the fixed-effect model but inconsequential for the random-effect model. Thus, we will employ a fixed effect panel model.

4.5 Redundant Fixed Effects Tests

Table 5:

Cross Section FE Test

Model	Effect test	Statistic	DF	Prob
1	Cross-section F	16.059	249,985	0.0000
2	Cross-section F	19.671	249,980	0.0000
3	Cross-section F	18.348	249,965	0.0000

Note: A Huasman test has been used to identify whether the model is fixed effect or random effect model.

4.6 Random effect Hausman Test

Table 6:

Cross Section RE Test

Model	Effect test	Chi2 Statistic	DF	Prob
1	Random Effect			
	Hausman	0.0000	15	1.0000
2	Random Effect	0.0000	20	1.0000
	Hausman			
3	Random Effect	0.0000	35	1.0000
	Hausman			

Hausman's second method contrasts fixed and random effects models. The fixed and random effects must be identical if the model is well-defined and the independent variables are uncorrelated with the individual effects.

In our econometric specification, the fixed effect is analyzed using Hausman tests. According to the alternative hypothesis, random effects are present in the preferred model but not in the fixed effects model. Regression shows the F statistic's p-value is 0.000. Thus, random estimation is abandoned. The P-value of the Hausman statistic suggests that we use the fixed effects method to estimate our parameters. If the Chi-square value is large enough, the fixed effects model is utilized for processing; if it is too little, the random effects model is employed.

4.7 FE GLS Regression Results

Comparison of moderating effect of firm ownership structure on dividend policy and corporate governance in models with and without firm ownership structure. Dividend payout is impacted by company governance and ownership structure, as shown in Equation 1. The only moderating effect of a corporately governed, dividend-paying ownership structure is shown in Eq. 2. the final model elaborates the simultaneous and moderating effects of CG and OS on dividend payout.

Table 7:

FE GLS regression Results

Variables	Model 1		Model 2		Model 3	
	Coefficient	T stat	Coefficient	T stat	Coefficient	T stat
Leverage	0.018*** (0.0019)	0.000			0.0185*** (0.001804)	0.0000

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Earn_per_	0.0003***	0.000		0.0006***	0.000
share	(9.08E-05)			(0.000114)	
Return on	-0.001***	0.000		-0.001***	0.002
Asset	(0.0002)			(0.000152)	
Board Size	0.035***	0.000		0.0189	0.191
	(0.0009)			(0.014516)	
Board Indep	-0.153***	0.000		-0.499***	0.000
	(0.0242)			(0.094665)	
Exec	0.15161**	0.000		-0.307214	0.388
Director	(0.0738)			(0.35644)	
No. board	0.1121***	0.000		0.4149***	0.0000
meetings	(0.0125)			(0.03224)	
CEO Duality	0.0627***	0.000		0.310979	0.000
	(0.0042)			(0.07663)	
Mang own	0.000339			0.01825**	0.012
	(0.0002)	0.159		(0.00733)	
Ins Own	-0.001***			0.039393	0.242
	(0.0003)	0.002		(0.03366)	
Own conc	0.026 ***			0.2683***	0.0001
	(0.0095)	0.006		(0.07012)	
Top 5 share	0.0011***			0.0123***	0.000
	(0.0003)	0.0002		(0.00240)	
CEO*IO			-0.000287	0.002 ***	0.000
			(0.00123)	(0.00122)	
CEO*MO			-0.000531	-0.001 ***	0.0002
			(0.00075)	(0.00067)	
CEO*OC			-0.098***	-0.193572	0.465
			(0.03450)	(0.04095)	
CEO*T5			-0.000893	0.004423	0.102
			(0.00064)	(0.00086)	
NBM*IO			0.0005***	-0.001 ***	0.0061
			(8.25E-05)	(7.66E-05)	
NBM*MO				-0.002124	0.0000
			0.000218	***	
			(0.00088)	(0.00068)	
NBM*OC				-0.079555	0.0000
			-0.258***	***	
			(0.03284)	(0.02614)	
NBM*T5			0.002***	-0.003***	0.000
			(0.00044)	(0.02614)	
BS*IO			0.000298*	0.005***	0.002
			(0.000180)	(0.004069)	
BS*MO			0.0006**	0.0028***	0.002
			(3.58E-05)	(0.00081)	
BS*OC			0.0457***	0.054***	0.000
			(0.00646)	(0.08976)	
BS*T5			-0.001***	-0.004240	0.1640
			(0.00012)	(0.00203)	
ED*IO			0.0042***	-0.005***	0.002
			(0.00144)	(0.00419)	
ED*MO			-0.0048**	-0.0147**	0.045
			(0.00251)	(0.00735)	
ED*OC			0.113727	-0.731171	0.300
			(0.14893)	(0.70546)	

ED*T5			0.0074*** (0.0013)	0.000	0.0328** (0.01595)	0.040
NED*IO			0.000152 (0.00136)	0.911	-0.0056 ** (0.00403)	0.060
NED*MO			-0.0057** (0.00241)	0.017	-0.020*** (0.00799)	0.009
NED*OC			0.3316** (0.14353)	0.021	-0.0530** (0.08432)	0.023
NED*T5			0.000416 (0.00187)	0.824	0.003345 (0.00208)	0.158
R2	0.351543		0.249803		0.367510	
F- Stat	46.38***	0.000	16.99***	0.000	17.99***	0.0000
Other control	Yes		Yes		Yes	
Firm product Year FE	Yes		Yes		Yes	
Observations	1250		1250		1250	

***Significant at *** p<.01, ** p<.05, * p<.1. Note: This table summarizes the regression results for fundamental approach variables calculated using the Dividend payment(DIV), Executive directors(ED), Earning per share(EPS), Firm age(FA), Firm leverage(FL), Firm size(FS), Institutional ownership(IO), Managerial ownership(MO), Number of Board meetings(NB), Non Executive Directors(NED), Ownership concentration(OC), Return on assets(ROA), Top 5 share holders (T5), Tangibility(TAN), CEO duality(CEO), Board size(BS, Boar), The static panel shows that the Hausman (1978) test is highly significant at the 1% level, validating the fixed-effect model estimation; This table shows how ownership and corporate governance considerations moderate dividend decisions.

The Fixed effect GLS model eliminated heteroskedasticity and autocorrelation. Model 1's GLS fixed effects panel estimation is presented. Institutional ownership negatively impacts dividend policy and payouts in both regions. This study shows that the market does not view institutional shareholders as an indicator of managerial efficiency. In model 3, the moderating effect of ownership structure establishes a negative relationship between managerial ownership and dividend. However, it is insignificant because dividend distribution raises control agency concerns for companies in managerial ownership structures. (Crutchley & Hansen, 1989; Jensen et al., 1992; Taleb, 2012) all agreed.

Similarly, (Shahab u & Javid, 2011) concluded. Most distressed Pakistani enterprises use leverage. The positive leverage coefficient contradicts (Grossman & Hart, 1980) and (Stulz, 1988). According to the findings of (Stulz, 1988) there is a large and positive relationship between leverage and DIV ratio in both model 1 and model 3, which is due to the fact that cash

flow theory mandates that all earnings be returned to shareholders and that favorable NPV projects be financed by debt (Sindhu et al., 2016).

Jensen & Meckling (1976b) claim that debt covenants and constraints imposed by loan holders reduce dividends for leveraged companies. Model 1 and model 3 show positive ownership concentration with ownership structure moderating. It appears that many of Malaysia's publicly traded enterprises are owned or controlled by families and have been passed down through generations (Claessens et al., 2002; Samad, 2004). Two theories explain family ownership (Anderson & Reeb, 2003; Jiraporn & Dadalt, 2007; Lam & Lee, 2008; Pindado & Requejo, 2014). Firstly, businesses run by founding families will restrict managers' ability to manipulate earnings, and controlling families may expropriate minority shareholders' interests, lowering performance. For instance, the governing family generally has organizational power. Most minority shareholders can control the board of directors and expropriate minority shareholders. (Sulong & Nor, 2008) examined dividends, ownership structures, and board governance characteristics and found that ownership concentration did not affect business performance.

In model 1, it is discovered that having a dual role for the CEO has a considerable beneficial impact on dividend payout, while in model 3, it has a favorable impact on both dividend policy and payouts. This is the case in both regions, with model 1 and model 3 indicating that there is a strong positive impact on dividend policy and payouts. After taking into account the moderating impact, Model 1 arrived at the same conclusion that we did, which not only validates our basic premise but also shows that the results are consistent with our initial hypothesis. This indicates that businesses with a single individual serving in both the CEO and chairman roles are more likely to have a dividend payout policy that is generous. This outcome can be explained by the fact that in emerging countries, combining the chairman and CEO posts is not a realistic method for limiting the risk of expropriation. As a direct consequence of this, shareholders want higher dividend payouts in order to

compensate for the company's negative free cash flow. This argument lends credence to the claim that was stated by (Baliga et al., 1996), namely that the dual role of CEO in industrialized countries is ineffectual as a control tool.

The fact that dividend policy in developing countries does not depend on the same set of characteristics for companies with and without CEO duality is a finding that may be considered conclusive. There are some differences between ownership concentration and the Top5_shar variables, to be more specific. As a result, we get to the conclusion that dividend policy has a significant and favorable relationship to the Top5_shar for companies that have dual CEOs in both models that take into account the moderating influence of ownership structure as well as those that do not. The implications of this finding may be particularly important for developing countries. Significant shareholders in emerging markets aim to accumulate earnings that they do not willing to share with minority shareholders in order to exert a greater degree of influence over the dividend decision made by enterprises that have a CEO who holds dual roles. According to (Cristea & Cristea, 2017; Zhang & Fu, 2014) there is an inverse link between the size of a company and the amount of dividends it pays out. This means that smaller companies pay out more dividends than larger companies. According to (Uittenbogaard, 2016) this could be due to the fact that smaller companies are compelled to pay bigger dividends in order to resolve information asymmetry.

Dividend decisions and payouts appear to suffer significantly when boards are given more autonomy. This demonstrates that companies with a larger share of outside directors are more likely to adopt dividend-cutting strategies. We also estimate a favorable correlation between board participation and dividend payments. Therefore, we might argue that an active board can help align managers' and shareholders' incentives through influence over compensation practices. Model 3 finds that CEO and ownership concentration are significant predictors of moderating variable, ownership concentration, and corporate governance parameters. The incorporation of OS parameters, such as board size, also suggests noteworthy outcomes.

For the first time, this study demonstrates that ownership structure (IO, MO, OC, T5) moderates the connection between corporate governance (BI, BS and CEO duality) and dividend decisions.. These results highlight the importance of having independent boards with high-dividend paying members who are not based in the country. Dividend payouts by boards with more members tend to be lower when more independent members are included. Executive Officer (CEO) Dividend decisions and distributions appear to be significantly impacted by board independence. This suggests that companies with a larger share of outside directors are more likely to adopt methods that limit the distribution of dividends to shareholders. Our analysis also reveals a favorable correlation between board activity and dividend payments. As a result, we can draw the conclusion that a board that is actively involved in pay policymaking can help align the incentives of management and shareholders.

4.8 Granger Causality Test

Table 8:

Causality Test

	DIV	FL	EPS	ROA	BS	BI	ED	NED	NB	CEO	MO	IO	OC	T5
DIV	-	No	No	No	No	No	No	No	No	No	No	No	No	No
FL	Yes	-	No	No	No	No	No	No	No	No	No	No	No	No
EPS	NO	No	-	Yes	No	No	No	No	No	No	Yes	No	No	No
ROA	NO	Yes	Yes	-	No	Yes	No	No	No	No	Yes	No	No	No
BS	NO	Yes	No	Yes	-	Yes	No	Yes	No	No	Yes	No	No	No
BI	NO	Yes	Yes	No	No	-	No	Yes	No	No	Yes	No	No	Yes
ED	NO	No	No	No	No	No	-	No	Yes	No	Yes	Yes	No	No
NED	NO	Yes	Yes	Yes	No	Yes	No	-	No	No	Yes	No	No	No
NB	Yes	No	Yes	No	No	Yes	No	Yes	-	No	Yes	No	No	No
CEO	No	No	No	No	No	Yes	No	Yes	No	-	No	No	No	No
MO	No	No	No	No	No	No	No	No	No	No	-	No	No	Yes
IO	No	Yes	No	No	Yes	Yes	Yes	No	No	No	Yes	-	Yes	Yes
OC	No	No	No	No	No	No	No	No	No	No	Yes	No	-	Yes
T5	No	No	No	No	No	No	No	No	No	No	No	No	Yes	-

***Significant at *** $p < .01$, ** $p < .05$, * $p < .1$. Note: This table summarizes the granger causality results for fundamental approach variables calculated using the Dividend payment(DIV), Executive directors(ED), Earning per share(EPS), Firm age(FA), Firm leverage(FL), Firm size(FS), Institutional ownership(IO), Managerial ownership(MO), Number of Board meetings(NB), Non Executive Directors(NED), Ownership concentration(OC), Return on assets(ROA), Top 5 share holders (T5), Tangibility(TAN), CEO duality(CEO), Board size(BS, Boar), The static panel shows that the Hausman (1978) test is highly significant at the 1% level, validating the fixed-effect model estimation; This table shows how ownership and corporate governance considerations moderate dividend decisions.

The cause came before the effect, and a causal arrangement contained information about the effect that was not

present in some other arrangement, says Granger (Poon & Granger, 2003). The cause's effect estimate is more accurate because of what came before. Granger Causality's essentials are, First, if H_0 is accepted, X does not affect Y for all panel variables from a granger perspective. Second, if H_0 is false and N_1 is 0, all x - y units have the same cause. Final: Heterogeneous causality exists if H_0 is discarded and $0N_1/N_1$ is true. Each unit's estimation and causality linkages may differ.

Table 8 shows how these factors cause each other unidirectionally, bidirectionally, or not at all. corresponding table. Earning per share directly affects Managerial ownership, Board independence, Nonexecutive Directors, and Board meetings. Board independence has a unidirectional causal influence on leverage, managerial ownership, Top 5 shareholders, board meetings, CEO duality, IO, ROA, and BS. Leverage causes dividend payout ratio.

Additionally, Financial Leverage affects ROA, BS, and BI unidirectionally. BS, Nonexecutive Directors, management ownership, and institutional ownership affect return on assets similarly. Executive and nonexecutive directors affect managerial ownership and board meetings unidirectionally.

When it comes to the moderators, we find that IO, MO, and OC all have a unidirectional causal effect on T5 and that IO also has a causal effect on financial leverage, OC and MO. Only Earnings per Share, Board Independence, and Executive and Non-Executive Director Bidirectional Causal Effects on Institutional Ownership are Bidirectional among the indicators considered. To that end, there is no causal relationship between the other components.

5 Conclusion

This study examines corporate governance, ownership structure, and dividend distribution practices of 250 Pakistani non-financial enterprises from 2016 to 2020. This study examines whether ownership structure and corporate governance moderate dividend payment. Our data show that business ownership structure and board characteristics strongly affect dividend policy. We show that companies with more institutional

investors pay higher dividends, which moderates OS. In emerging markets, dividend policy affects dividend distributions differently in enterprises with and without CEO duality, even when both firms have CEO duality. CEO dualism changes when moderated.

Dividing decisions are inversely related to Board Independent, Return on assets, and institutional ownership when moderation is not employed. However, moderation reverses institutional ownership and board meetings. Because dividend payment adds to control agency difficulties, the moderating effect shows that institutional ownership and dividend are positively correlated and managerial ownership is insignificant. However, this instrument becomes less effective when the firm is already in a managerial ownership structure. Pakistan's financially challenged firms use leverage. Previous data contradict leverage's positive coefficient. According to cash flow theory, all earnings must be returned to shareholders, whereas favorable NPV projects must be financed by debt, hence leverage and DIV ratio are positively correlated.

5.1 Recommendations for policy and future study

The findings of the study can be used to aid companies in evaluating which sorts of OS and CG practices will benefit them the most and help them gain a competitive edge. This can be done by applying the findings to policy, which can then be utilized to assist companies. Two facets of this research should be highlighted in particular here. To begin, there is a direct correlation between ownership transitions and shifts in representative samples. The model is constructed on the idea that there is no perfect substitute for redistribution of shareholdings, and this is one of its foundational premises. Both integrated and non-integrated firms will be shown to have equal access to performance measurements after the analysis is completed. In the second part of this research project, an evaluation of the significance of alternative corporate governance components in Pakistani non-financial companies is carried out. This model, in contrast to earlier studies that investigated the effects of corporate governance on the performance of companies, is able

to dissect those effects down to the level of individual corporate governance components.

The shareholders benefit from this study since it enables them to maximize the effectiveness of their investment strategy. They have the opportunity to gain knowledge regarding the DIV ratio of organizations designed by managerially owned enterprises as well as firms owned by institutions in connection to the ownership of those firms. In the end, they have the option of investing the money in comparable enterprises that, from the point of view of an investor, offer larger short-term benefits or capital gains. When calculating the DIV ratio, managers need to take into account not only the rewards that are offered to investors but also the conduct of those investors. This research is based on a sample size that consists exclusively of non-financial listed companies. It is not standard practice to categorize portfolios according to the level of capitalization they hold (high, medium, or low). Validation of the model in new markets is something that may be done to guarantee that it is generalizable. This study urges regulators, such as the Securities and Exchange Commission of Pakistan, to establish policies that promote diversity on boards of directors in order to drive better decision-making by increasing both the amount of vision and the amount of innovative ideas that are considered. In addition, a policy will be devised that will make it mandatory for listed corporations to publish information regarding the observable and unobservable traits of directors in their final reports. This will provide investors with the opportunity to acquire a deeper comprehension of board diversity.

It is possible to do further research with a greater number of samples, an extended sample period, or with a range of multinational corporations originating from the Asia-Pacific area, advanced economies, and developing nations. All of these options are feasible.

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