Revisiting the Effect of Dividend Policy on Firm Performance and Value: Empirical Evidence from Korean Market

Okechukwu Enyeribe Njoku * and Younghwan Lee *

Posted Date: 12 January 2024

doi: 10.20944/preprints202401.1015.v1

Keywords: Agency Problem; Dividend Policy; Firm Performance; Firm Value; Ownership Concentration

Article

Revisiting the Effect of Dividend Policy on Firm Performance and Value: Empirical Evidence from Korean Market

Okechukwu Enyeribe Njoku * and Younghwan Lee

Kumoh National Institute of Technology Gumi, Gyeongsangbuk-do, South Korea;
okechukwuenyeribenjoku@gmail.com
* Correspondence: leeyh@kumoh.ac.kr

Abstract: This study investigates the effect of dividend policy on firm performance and value in the Korean market, taking into account the unique context of Chaebol ownership structures. Analyzing 5,478 observations from the Korean Composite Stock Price Index, the research employs multiple regression models to explore the effects of various dividend policy measures under alignment and entrenchment theories. The key findings reveal significant impacts of cash dividend payment on firm value, while dividend yield and dividend policy exhibit varying associations. In the Chaebol and non-Chaebol context, mixed results suggest complex interactions between dividend policy and business outcomes. Policy recommendations emphasize transparent communication about dividend policy to mitigate information asymmetry and enhance corporate governance in the Korean market.

Keywords: agency problem; dividend policy; firm performance; firm value; ownership concentration

1. Introduction

The impact of dividend payouts on firm value has been widely acknowledged in the field of imperfect market theory, taking ideas from the cash flow signaling theory and the dividend information content hypothesis (Bhattacharaya, 1979; John & Williams, 1985; Miller & Rock, 1985)[1–3]. Managers with privileged knowledge of the firm's cash flow are incentivized to disclose this information to investors, providing insights into the firm's true value, according to these theoretical frameworks.

This study looks into the multifaceted relationship between dividend policy and firm performance and value in the context of the Korean Composite Stock Price Index. In the Korean corporate finance landscape, two prominent agency difficulties, Type I and Type II, influence on the relationship between dividend policy and firm outcomes.

Type I agency problems arise as disputes between owners and managers, as proposed by Jensen and Meckling (1976)[4]. As a result of the inherent information asymmetry, these conflicts are more prominent in widely distributed organizations. Type II agency difficulties, on the other hand, involve minority shareholder expropriation, which is typical in family enterprises with larger ownership concentrations and tight-knit decision-making processes (Wang, 2006)[5]. The entrenchment theory emphasizes the agency problems between family and other owners(Stulz, 1990)[6].

The focus of this research is to empirically explore the direct effects of various dividend policy measures on the widely accepted firm performance and firm value indicators in the Korean context. This investigation will provide insights on how managers may strategically control dividend policy, as impacted by either alignment or entrenchment theories. This manipulation produces a complicated situation in which dividend distribution can be used for selfish resource retention, resource tunneling, or empire building, diverging from its intended alignment with shareholder interests (Jensen, 1986; Shleifer & Vishny, 1986)[7,8].

 doi:10.20944/preprints202401.1015.v1

Previous empirical studies, as mentioned by Burns, McTier, and Minnick (2015)[9], investigated the influence of insufficient investor protection on dividend disbursements in European countries. Jo and Pan (2009)[10] investigated whether firms with entrenched management were likely to pay dividends. Gugler (2003)[11] explored the effect of ownership structure on dividend policy in Austrian enterprises, whereas Faccio et al. (2001)[12] investigated the effect of group affiliation on dividend payouts in East Asian countries. Miller and Kevin (1985)[13] and Miller and Modigliani (1961)[14] also made seminal contributions to dividend policy under asymmetric information and share valuation, respectively. Chen et al. (2005)[15] examined 412 publicly traded Hong Kong enterprises, exhibiting mixed results regarding the association between dividend payouts and corporate performance. Notably, a negative relationship was discovered between market-to-book and dividend yield, although a positive relationship existed between ROA and dividend yield, particularly in large enterprises. Furthermore, the study discovered a negative association between dividend yield and family ownership (up to 10% ownership), which turns positive for small enterprises with 10 to 35% ownership. According to these findings, controlling families, particularly in smaller enterprises, may use dividend policy to extract resources, whereas investors in firms with severe agency conflicts may demand bigger payouts.

Although this theme had been massively investigated in literature in the developed markets and other emerging economies, the motivation behind revisiting this topic is fueled by the avalanche of unique characteristics about the Korean market that would lead us to expect different relationships between various dividend policy measures and the firm's market performance and accounting outcomes. In a distinctive Korean corporate environment typified by significant information asymmetry and complex agency concerns, our analysis looks into the varied connection between dividend policy, firm performance, and value under the alignment and entrenchment theories. Influential major shareholders exercise enormous control through sophisticated cross-holding structures, as demonstrated by studies such as Joh (2003)[16] and Paligorova (2010)[17]. Despite the general sentiment in Western markets, as seen in studies by Burns, McTier, and Minnick (2015)[9], Jo and Pan (2009)[10], Gugler (2003)[11], and Faccio et al. (2001)[12], Korean firms with greater dividend yields confront lower valuations, demonstrating management's difficulty in overcoming information asymmetry. The reluctance to dividends under managerial entrenchment, particularly in Chaebol businesses, raises worries about putting personal interests over shareholder wealth, as stated by Lee (2022)[18]. The persistent negative impacts associated with dividend withholding underscore complicated agency linkages, which have unique significance for Korean firms, particularly those affiliated with Chaebol conglomerates.

Indeed, the complicated terrain of the Korean corporate environment, typified by prominent significant shareholders and sophisticated cross-holding structures, provides a strong reason to reconsider the impact of dividend policy on firm performance and value. The enormous impact wielded by major and controlling shareholders highlights the need of unraveling the dynamic link within the alignment and entrenchment hypotheses. Current research lacks consensus on the true effects of dividend policy on firm performance and value, particularly in the unique Korean market scenario. This study fills a vacuum in the literature by adding to a better knowledge of corporate finance dynamics and giving significant insights for academic debate and practical decision-making in the Korean market.

Our investigation is focused on addressing two pivotal questions: (i) To what extent does dividend policy impact the firm's performance and value? (ii) Among firms in the Korean market broadly known as the Chaebols (large business conglomerates under a family control or affiliated company) and non-Chaebol firms (characterized by widely distributed governance and ownership structures), to what extent does dividend policy impact firm performance and value through the lens of alignment and entrenchment hypotheses? In answering these research questions, the first objective is to explore the effect of dividend policy on the firm value and firm performance. In the dependent variable specification, this study employed Tobin's Q and Market-to-Book as firm value designates while Return on Assets (ROA), Return on Equity (ROE) and Return on Sales (ROS) are designated as firm performance proxies. In the primary independent variable specification, four dividend policy

 doi:10.20944/preprints202401.1015.v1

proxies are employed namely - dividend policy, cash dividend payment, dividend yield and dividend payout ratio. These control variables are specified - such as DummyChaebol, which distinguishes a large business group, a Chaebol firm or its affiliated company from other firms in the market, debt ratio, ownership concentration, free cash flow, asset intensity, employee intensity and size. These control variables are all employed to gauge their contributing influences in the determination of the effects of dividend policy on firms' outcome. Multiple regression models including OLS and LSDV(fixed effects) are used in the regression analysis. We **test our first hypothesis and find support** that various dividend policy proxies indeed significantly have effects (positive and negative) on firm's value and performance after accounting for firm specific characteristics. Dividend policy(a binary variable which assumes 1 if a firm pays out dividend and 0 otherwise), and dividend yield exhibit a significantly negative association with Tobin's Q in the OLS estimation. However, after accounting for firm specific characteristics, the negative effects of dividend policy becomes significantly positive in the fixed effects model. While cash dividend payment consistently exhibited high statistical positive effect on Tobin's Q in both the OLS and LSDV estimations, the dividend payout ratio remained statistically insignificant across models of estimation. This evidence as reported for Tobin's Q is repeated when the effect of the four dividend policy measures are gauged on the alternative firm-value proxy, Market-to-Book. The regression result shows that dividend policy and dividend yield exhibited highly significant negative effects in the OLS estimation but after accounting for firm unique attributes, the dividend policy variable effect becomes significantly positive while the negative effect of dividend yield is sustained even after firm unique attributes have been accounted for. Similarly as we reported for Tobin's Q, the effect of cash dividend payment on Market-to-Book is positively and significantly sustained while that of dividend payout ratio did not alter its insignificant effects status across both estimation methods. The effects of various dividend policy proxies on Return on Assets (ROA) and Return on Equity are intriguing and identical at the same time. Across both econometric estimation techniques, we report highly significant positive effects between the three dividend policy proxies namely- dividend policy, cash dividend payment and dividend yield (DY) on ROA and ROE. However, dividend payout ratio (DPR) as it was reported in the case of Tobin's Q and Market-to-Book effects, sustained its insignificant effect with ROA and ROE across models of estimation. Interestingly, the effect of the four dividend policy proxies, namely dividend policy, cash dividend payment, dividend yield and dividend payout ratio, on Return On Sales (ROS) across OLS and LSDV estimation models remained positive and highly statistically significant. The second objective is to simultaneously investigate the effects of various dividend policy proxies on firm value and firm performance indicators with respect to designated Chaebol firms and non-Chaebol firms under the alignment and entrenchment hypotheses. Positive effects conventionally imply alignment of interests and negative effects may suggest a deviation or possible entrenchment concerns. By splitting our full study sample into Chaebol firms (controlled by families or affiliated concerns with high ownership stakes) and non-Chaebol firms with dispersed stock - ownership structures, **we test our second hypothesis and report interesting findings**. The cash dividend payment variable has statistically significant positive effects on Tobin's Q, Market-to-Book, ROA, ROE and ROS in the two sub-samples, Chaebol firms and non-Chaebol firms. Dividend Yield exhibit a statistically significant negative association on the firm value variables of Tobin's Q and Market-to-Book in both the Chaebol and non-Chaebol firms whereas the effect on ROA, ROE and ROS remains significantly positive in both Chaebol and non-Chaebol firms. DPR shows a statistically significant positive association with firm value proxies-Tobin's Q and Market-to-Book in the Chaebols firms group and remains insignificant in the non-Chaebol sub-sample. Surprisingly, DPR effect on ROA, ROE and ROS is significantly negative in the Chaebol firms sub-sample whereas in the non-Chaebol group of firms, DPR exhibits statistically significant positive effects. The integrated analyses above suggest that for both Chaebol and non-Chaebol firms, the results are mixed, with some proxies supporting the alignment hypothesis and others suggesting caution, possibly aligning with the entrenchment hypothesis. This study applied caution in interpreting negative coefficients because, traditionally, positive associations between dividend policy and firm performance and value are more aligned with the typical expectations based on

 doi:10.20944/preprints202401.1015.v1

signaling theory. Negative associations may deviate from conventional expectations and could suggest different dynamics or potential entrenchment issues. Therefore, caution is advised to thoroughly understand the underlying reasons for these negative associations and consider them within the broader context of corporate governance and ownership structures, especially in the Korean market.

The study makes several important contributions. Firstly, it systematically examines the effect of dividend policy on firm value and performance in the Korean market, addressing a significant gap in the literature specific to this context. Second, it gives detailed insights into the effects of dividend policy by taking into account the particular ownership arrangements prevalent in Korea, such as Chaebols. This helps to understand alignment and entrenchment theories in an unusual corporate governance setting. Finally, the analysis finds disparate outcomes, warning against a one-size-fits-all interpretation and underlining the importance of a comprehensive understanding of the relationship between dividend policy and firm outcome. These findings have ramifications for management, shareholders, and scholars. For managers, the research reveals that the influence of dividend policy on firm value and performance varies, and that careful evaluation of specific aspects, such as ownership structures, is critical in decision-making. Shareholders, particularly those in Chaebol corporations, should be cognizant of the uneven performance and potential entrenchment risks linked with dividend policy. Academics benefit from a deeper grasp of the Korean corporate landscape, which contributes to the larger literature on dividend policy, shareholder value, and profitability.

Based on these findings, a policy recommendation is to urge management and shareholders, particularly in Chaebol corporations, to be more transparent and communicative about dividend policy. Improved disclosure methods can help to reduce information asymmetry and align managerial choices with the interests of shareholders. This is consistent with the broader purpose of supporting corporate governance norms in the Korean market that boost transparency, accountability, and value creation. The subsequent sections unfold as follows: Section 2 looks into the examination of existing literature and the development of hypotheses. In Section 3, comes the research design, such as data, variable measurement, and model specification. Section 4 presents estimation results and robustness tests. Finally, Section 5 highlights the concluding thoughts.

2. Literature Review

In the realm of imperfect market theory, the impact of dividend payouts on firm valuation has been widely acknowledged, drawing insights from the cash flow signaling theory and the dividend information content hypothesis (Bhattacharaya, 1979; John & Williams, 1985; Miller & Rock, 1985)[1–3]. According to these theoretical frameworks, managers, possessing privileged knowledge about the firm's cash flow, are incentivized to convey this information to investors, providing insights into the genuine value of the firm.

Chen et al. (2005)[15] analyzed 412 publicly listed Hong Kong firms during 1995–1998, revealing mixed results regarding the relationship between dividend payouts and firm performance. Notably, a negative association was found between market-to-book and dividend yield, while a positive link existed between ROA and dividend yield, especially in large firms. Additionally, the study identified a negative relationship between dividend yield and family ownership (up to 10% ownership), turning positive in the 10 to 35% range for small firms. These findings suggested that controlling families, particularly in smaller firms, may use dividend policy for resource extraction, while investors in firms with significant agency conflicts may demand higher payouts.

Nissim and Ziv (2001)[19] investigated the correlation between dividend changes and future profitability over a five-year period. Results indicated a positive relationship between increased dividends and income in the subsequent four years. However, a decrease in dividends was not associated with future income. The asymmetrical market reaction suggested that only a dividend increase led to improved performance over the four years following the announcement, with no abnormal profitability observed in cases of dividend decline.

Amidu (2007)[20] identified a positive and significant relationship between return on assets (ROA) and dividend policy in firms listed on the Ghana Stock Exchange over the 1997-2004 period. The study also found a statistically significant negative association between profitability and dividend payout ratio. Furthermore, dividend policy exhibited a positive and significant influence on return on equity (ROE), while a negative relationship was observed between ROE and dividend payout ratio. Notably, the coefficients for all variables concerning Tobin's Q were statistically insignificant. Nguyen et al., (2021)[21] analyzed 450 Vietnamese firms, finding that a higher dividend rate positively affected return on assets (ROA), while the decision of dividend payment negatively impacted ROA. For return on equity (ROE), a positive impact was observed for dividend rate, while the decision of dividend payment had a negative influence. Additionally, dividend rate negatively affected Tobin's Q, and the decision of dividend payment contributed to an increase in Tobin's Q at a significant level of 10%.

Benartzi et al., (1997)[22], using Fama and French's (2001)[23] model, found that observed dividend changes lacked informative content regarding future profits, with statistically insignificant coefficients for changes in dividends concerning year 1 and year 2 profit changes. Amihud and Murgia (1997)[24] confirmed the dividend information content hypothesis (ICH) for 200 firms listed on the Frankfurt Stock Exchange, with a significant abnormal return of approximately 0.965 for announcements of dividend increases and -1.73 for announcements of dividend decreases.

Khan et al. (2022)[25] analyzes the internal determinants of dividend policies in Japan and South Korea, revealing distinct patterns. Notably, Korean firms display similarities to Anglo-Saxon countries, with larger firms paying higher dividends during earnings increases, whereas Japanese firms differ, decreasing cash dividends with increased profitability, offering useful information for stakeholders and contributing to a detailed understanding of dividend policy dynamics in diverse financial systems. These studies collectively contribute to the understanding of the complex interplay between dividend policy and firm performance, shedding light on the varying outcomes influenced by contextual factors and market conditions.

Additionally, in the Korean context, studies like Nam (1991[26]), Park (2004)[27] Kim and Jang (2016)[28] Kim and Kim (2017)[29], and Jung and Chun (2017) explore dividend signaling. Park (2004) finds a positive link between changes in dividends and future profitability, supporting the signaling theory. Jung and Chun (2017)[30] explore Korean banks' dividends, supporting the signaling theory, but not the agency theory. Kim and Kim (2017)[29] finds that KOSDAQ firms prioritize dividends for signaling, contrasting KOSPI firms favoring earnings retention. Nam (1991)[26], however, **fails** to establish a reliable link between changes in EPS and dividend policy in Korea.

The scholars in the theoretical and empirical debate around dividend policy and firm performance have contributed significantly to the field, yet consensus remains elusive. Rozeff (1982)[31] delves into the determinants of dividend payout ratios, Easterbrook (1984)[32] presents two agency-cost explanations of dividends, and Jiraporn et al. (2011)[33] empirically investigate dividend payouts and corporate governance quality. McConnell and Servaes (1990)[34] provide additional evidence on equity ownership and corporate value, while Li et al. (2020)[35] explore the link between controlling shareholder share pledging and firm cash dividends. Lintner (1956)[36] examines the distribution of incomes among dividends, retained earnings, and taxes. Mitton (2004)[37] explores corporate governance and dividend policy in emerging markets, and Martins and Novaes (2012)[38] investigate the impact of mandatory dividend rules on firms' ability to invest. Hu and Kumar (2004)[39] study managerial entrenchment and payout policy, Isakov and Weisskopf (2015)[40] focus on payout policies in founding family firms, and Yu et al. (2021)[41] analyze dividend payouts and catering to demands in the context of a dividend tax reform. Atanassov and Mandell (2018)[42] contribute evidence on tunneling from master limited partnerships. Theoretical approaches to dividend policy such as dividend irrelevance, signaling, and agency theories remain diverse and conflicting, presenting theoretical gaps that need clarification in the Korean market.

3. Research Design

3.1. Sample Selection

Financial information of firms were massively downloaded from **KisValue** version 3.2 database. The initial sample includes 718 Korean firms listed on the Korea Composite Stock Price Index (KOSPI). Financial institutions like insurances, banks and capital holding companies were excluded because their financial characteristics differed from those of industrial firms. As a result, excessive leverage for financial firms is unlikely to have an identical definition for non-financial firms (Fama and French 1992)[43]. Firms with missing dividend data and information were removed. Firms must have reported sales during the sampling period to be selected. Using the pandas jupyter in python language program, the raw data was synthesized further and cleaned up before conversion into a balanced panel data structure. Eventually, 498 non-financial firms with comprehensive financial statements were sampled, from 2010 to 2021. Due to the fact that some variables were lagged, and to also capture contemporaneous estimations, our cross-sections span 2011 to 2021 yielding a total of 5,478 firm-year observations. Winsorization at 95% is observed to limit extreme values in the dataset and to reduce the effect of possible spurious outliers.

3.2. Estimation Method

We employ ordinary least-squares (OLS) panel data regression models in the estimation of the effect of dividend policy on firm performance and value. Also this study employs Least Squares Dummy Variable model (LSDV). This approach is often used when dealing with panel or longitudinal data, where observations are made on the same entities over multiple time periods or under different conditions. LSDV in panel data addresses unique entity-specific effects by introducing dummy variables for each entity, capturing characteristics not accounted for by observed variables. It accommodates time-invariant entity features, ensuring a robust estimation of fixed effects models where unobserved factors vary across entities but remain constant over time. LSDV also mitigates endogeneity concerns and controls for heterogeneity by estimating separate intercepts for each entity, enhancing efficiency and accuracy in parameter estimates.

3.3. Research Model and Variable Specification

Our investigation is focused on addressing two pivotal questions: (i) To what extent does dividend policy impact the firm's performance and value? (ii) Among firms in the Korean market broadly known as the Chaebols (large business conglomerates under a family control or affiliated company) and non-Chaebol firms (characterized by widely distributed governance and ownership structures), to what extent does dividend policy impact firm performance and value through the lens of alignment and entrenchment hypotheses? In answering these research questions, the first objective is to explore the effect of dividend policy on the firm value and firm performance. In the dependent variable specification, this study employed Tobin's Q and Market-to-Book as firm value designates while Return on Assets (ROA), Return on Equity (ROE) and Return on Sales (ROS) are designated as firm performance proxies. In the primary independent variable specification, four dividend policy proxies are employed namely - dividend policy, cash dividend payment, dividend yield and dividend payout ratio. These control variables are specified - such as DummyChaebol, which distinguishes a large business group, a Chaebol firm or its affiliated company from other firms in the market, debt ratio, ownership concentration, free cash flow, asset intensity, employee intensity and size. These control variables are all employed to gauge their contributing influences in the determination of the effects of dividend policy on firms' outcome. The second objective is to simultaneously investigate the effects of various dividend policy proxies on firm value and firm performance indicators with respect to designated Chaebol firms and non-Chaebol firms under the alignment and entrenchment hypotheses. Positive effects conventionally imply alignment of interests and negative effects may suggest a deviation or possible entrenchment concerns. Korea Fair Trade Commission, KFTC, (BHSN, 2020)[44] and 기업집단포털(E-Group, 2023)[45] designates all of the affiliates of a Chaebol group as one large business group when the total assets of all affiliates are KRW5trillion won or more. If the leader holds 30% or more of the issued shares in conjunction with related persons, it is considered to be actually a controlling company. We split our full study sample

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

into Chaebol firms (controlled by families or affiliated concerns with total assets of over KRW5 trillion and high ownership stakes above 30% of issued shares) and non-Chaebol firms with dispersed stock - ownership structures. We propose a research model that examines the relationship between dividend policy and firm value and performance in Korean traded companies. This study controls for debt ratio, free cash flow, ownership concentration, DummyChaebol, which takes a value of 1 if a firm is a Chaebol or 0 otherwise, asset intensity, employee intensity and size so as to account for the potential confounding effects of these factors. This study proposes the following hypotheses: Hypothesis 1: The level of impact of dividend policy on firm performance and value in the Korean market is significant. Hypothesis 2: The influence of dividend policy on firm performance and value varies between Chaebol firms, characterized by family control or affiliation, and non-Chaebol firms with widely distributed governance and ownership structures, reflecting alignment and entrenchment hypotheses. In order to test the hypotheses above, the following research models are proposed:

$$FV = \beta_0 + \beta_1 DP_{i,t} + \beta_2 CDP_{i,t} + \beta_3 DY_{i,t} + \beta_4 DPR_{i,t} + \beta_5 \text{DEBT RATIO}_{i,t} + \beta_6 FCF_{i,t} + \beta_7 \text{OWN.CONC}_{i,t} + \beta_8 \text{DUMMYCHAEBOL}_{i,t} + \beta_9 \text{ASSET-INTENSITY}_{i,t} + \beta_{10} \text{EMPLOYEE-INTENSITY}_{i,t} + \beta_{11} SIZE_{i,t} + \varepsilon \quad (1)$$

$$FP = \beta_0 + \beta_1 DP_{i,t} + \beta_2 CDP_{i,t} + \beta_3 DY_{i,t} + \beta_4 DPR_{i,t} + \beta_5 \text{DEBT RATIO}_{i,t} + \beta_6 FCF_{i,t} + \beta_7 \text{OWN.CONC}_{i,t} + \beta_8 \text{DUMMYCHAEBOL}_{i,t} + \beta_9 \text{ASSET-INTENSITY}_{i,t} + \beta_{10} \text{EMPLOYEE-INTENSITY}_{i,t} + \beta_{11} SIZE_{i,t} + \varepsilon \quad (2)$$

where:

FV (Firm Value) = Tobin's Q and Mark-to-Book ratio.

FP (Firm Performance) = ROA, ROE and ROS. FV and FP represent firm value and performance measures, respectively.

$\varepsilon i,t$ is the error term for the firm i, in year t.

$DP_{i,t}$ is the variable representing the dividend policy for firm i at time t. As a binary variable, it assumes 1 when firm i, pays dividend at time t, else 0.

CDP$_{i,t}$ is the variable representing cash dividend payment. As a dividend policy proxy, it is computed by dividing the total cash dividends paid by the net income of the company. This ratio specifically focuses on the portion of net income that is distributed to shareholders in the form of cash dividends. It provides insights into the firm's ability to generate sufficient cash flow from its operations to fund dividend payments.

DY$_{i,t}$(Dividend Yield) = (Annual Dividend per Share / Current Stock Price) x100. Dividend yield is a valuable proxy for estimating the impact of dividend policy on firm performance and value. It measures shareholder returns directly, attracts income-seeking investors, reflects market perception of company performance, signals the impact of dividend policy on stock prices, aligns with shareholder value, allows comparative analysis, reveals historical trends, and serves as a signal of financial strength and management confidence in profitability.

DPR$_{i,t}$ (Dividend Payout Ratio) is calculated by dividing the total amount of dividends paid by a company by its net income. The formula for DPR=(Dividends Paid/Net Income)×100. DPR directly communicates the proportion of net income distributed to shareholders as dividends. This makes it a straightforward measure of how much profit the company is sharing with its investors. A consistent and reasonable DPR can indicate financial discipline and prudent capital management. It reflects a firm's approach to balancing dividend payments with retained earnings for future growth and investment.

DEBT RATIO: The debt ratio is calculated by dividing a firm's total debt by its total assets. The formula for computing the debt ratio is as follows: Debt Ratio = (Total Debt/Total Assets) ×100. Debt ratios influence how efficiently a firm allocates capital. As a control variable, debt ratio helps assess whether a firm's dividend policy is influenced by its capital structure, providing clarity on the factors shaping the relationship between dividends and financial decisions.

FCF$_{i,t}$ measures the firm's free cash flow. It is computed as Cash from operating activities minus (Common and preferred dividends) scaled by total assets.

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

Own-Conc.$_{i,t}$ (Ownership Concentration) is measured by the percentage of issued shares held by the first major shareholders.

DUMMYCHAEBOL$_{i,t}$: Including "DummyChaebol" as a control variable is essential to isolate the impact of Chaebol membership on the relationship under study. This dummy variable aids in accounting for the diverse business units within Chaebols, controlling for unique governance structures, and ensuring a clearer understanding of how group affiliation influences the observed relationship. It takes a value of 1 if a firm i, at time t, is a Chaebol or 0 otherwise.

Tobin's Q$_{i,t}$ is the firm value variable . Tobin's Q Ratio is computed as the Total Market Value of Firm scaled by the Total Asset Value of firm i, in year t.

MARKET-TO-BOOK :The Market to Book (M/B) ratio is calculated by dividing the market capitalization of a company by its net book value. Here, the market capitalization represents the total market value of a firm's outstanding shares, and the net book value is the difference between a firm's total assets and total liabilities as reported on its balance sheet.

ROA$_{i,t}$ is **return on assets** and stands in for firm performance. ROA measures a firm's ability to generate profit from its assets. ROA=(Net Income/ Total Assets)×100.

ROE$_{i,t}$ **is return on equity,** which evaluates the profitability of a company in relation to its shareholders' equity. ROE= (Net Income/ Shareholders' Equity) ×100.

ROS$_{i,t}$**:** is **Return on Sales** which assesses a firm's net income relative to its total revenue. ROS = (Net Income/Total Revenue)×100.

Asset-Intensity of the firm is computed as Asset$_{i,t}$ scaled by Sales$_{i,t.}$ [Asset Intensity$_{i,t}$ = Asset$_{i,t}$/Sales$_{i,t}$]

Employee-Intensity of the firm is computed as Employee$_{i,t}$ scaled by Sales$_{i,t.}$ [Employee Intensity$_{i,t}$ = Employee$_{i,t}$/Sales$_{i,t}$]

SIZE$_{i,t}$ **(Total Revenue):** This is computed as the Log of Sales Revenue of firm i, at time t. It describes the total income generated by the company from its primary operations.

4. Results

4.1. Sample Statistics

Table 1 provides descriptive statistics for various financial and ownership-related variables across 5,478 observations. Tobin's Q with mean of 0.7057, indicates, on average, firms have a market value slightly higher than their book value whereas a Standard Deviation (Std. Dev.) of 0.5562, reflects variability around the mean. Market-To-Book with mean of 1.2226, suggests, on average, the market values firms at approximately 22% above their book value and the Std. Dev. of 0.9346 indicate significant variability. ROA (Return on Assets) with a mean of 0.0235, indicates a low average return on assets while a Std. Dev. of 0.0555, shows variability. ROE (Return on Equity) with a mean of 0.0311, reflects a modest average return on equity whereas a Std. Dev, of 0.0994, indicates variability. A mean of 0.0575 suggest a moderate average return on sales (ROS) while a Std. Dev. of 0.1614, indicates variability. Dividend Policy having a mean of 0.6687, suggests a prevalence of firms with dividend policies (values close to 1) whereas a Debt Ratio with mean of 0.4014, indicates an average debt-to-assets ratio of 40%. A mean of 29.8639 is an indication that sampled firms exhibit an average ownership concentration of 29.86%. whereas a DummyChaebol mean of 0.2169, suggests the presence of firms affiliated with Chaebols. A mean of 3.0323 for Asset Intensity suggests that, on average, firms have a relatively higher proportion of assets contributing to their sales. However, the Employee Intensity mean of 1.88E-09, indicates a very low average proportion of employees contributing to sales. Dividend Yield with a mean of 0.0122 indicates an average dividend yield of 1.22% while a Dividend Payout Ratio (DPR) mean of 0.2023, suggests an average payout of 20.23% of earnings as dividends. A mean of 0.0075 for cash dividend payments (CDPi,t) implies that, on average, firms distribute approximately 0.75% of their net income to shareholders in the form of cash dividends. This means that, for every dollar of net income generated by the company, about 0.0075 dollars, or 0.75 cents, are paid out as cash dividends to the shareholders.

 doi:10.20944/preprints202401.1015.v1

Table 1. Descriptive Statistics.

VARIABLE	OBS.	MEAN	STD. DEV.	MEDIAN	MINIMUM	MAXIMUM
Tobin's Q	5478	0.7057	0.5562	0.5253	0.0882	2.2114
Market-To-Book	5478	1.2226	0.9346	0.9199	0.2284	3.7833
ROA	5478	0.0235	0.0555	0.0251	-0.1138	0.1257
ROE	5478	0.0311	0.0994	0.0353	-0.2402	0.2061
ROS	5478	0.0575	0.1614	0.0341	-0.2514	0.5497
DIVIDEND POLICY	5478	0.6687	0.4707	1.0000	0.0000	1.0000
CASH DIVIDEND PAYMENT	5478	0.0075	0.0083	0.0048	0.0000	0.0285
DIVIDEND YIELD	5478	0.0122	0.0125	0.0090	0.0000	0.0405
DIVIDEND PAYOUT RATIO	5478	0.2023	0.2652	0.1185	-0.0827	0.9094
DEBT RATIO	5478	0.4014	0.2211	0.3951	0.0005	2.5343
FREE CASH FLOW	5478	0.0439	0.0591	0.0406	-0.0697	0.1632
OWN. CONC.	5478	29.8639	14.8796	26.8200	9.6004	61.0900
DUMMYCHAEBOL	5478	0.2169	0.4121	0.0000	0.0000	1.0000
LN. ASSET_INTENSITY	5478	3.0323	4.8635	1.3484	0.5387	20.3293
LN.EMPLOYEE _INTENSITY	5478	1.88E-09	1.35E-09	1.53E-09	2.59E-10	5.29E-09
SIZE	5478	26.2427	1.4733	26.1601	23.4752	29.278

Note: Obs.= Observations; ROA = Return on Assets; ROE = Return on Equity; ROS = Return on Sales; Own. Conc. = Ownership Concentration; Tobin's Q = Firm Value.

These statistics collectively depict the distribution and tendencies in firms' cash dividend payment practices, dividend yields, and dividend payout ratios. The relatively low mean values suggest that, on average, business groups may adopt a conservative approach to cash dividends, with considerable variability in these practices. Further analysis would provide additional context for understanding firms' dividend strategies.

4.2. Correlation Analysis

Table 2 below is the correlation table (Cross Correlation Matrix) which shows the pairwise correlations between different variables. Tobin's Q has a strong positive correlation with Market-To-Book (0.8619), ROA (0.1864), ROE (0.1363), ROS (0.1437), Cash Dividend Payment (0.3596), Asset Intensity (0.0767), Employee Intensity (0.1869), Dividend Payout Ratio (0.1059), Dividend Policy (0.0709), Free Cash Flow (0.1403), and DummyChaebol (0.0701) whereas it has a strong negative correlation with size (-0.1193), Dividend Yield (-0.1143), Debt Ratio (0.3351), and Ownership Concentration(-0.1053). ROA has positive correlations with Tobin's Q (0.1864), Market-To-Book (0.0307), ROE (0.8959), ROS (0.6226), Cash Dividend Payment (0.4995), Dividend Payout Ratio (0.1772), Dividend Yield (0.3329), Dividend Policy (0.4294), DPR(0.1772), Dividend Yield(0.3329), Dividend Policy(0.4294), Dummy Chaebol(0.1940), Ownership Concentration(0.0997) and Free Cash Flow (0.4911) whereas ROA has negative correlations with Asset Intensity (-0.0525), Employee Intensity (-0.1762), and Debt ratio(-0.3000). While the observed correlations reveal useful information about the relationships between variables, it is important to remember that correlation does not indicate causation. The discovered associations point to trends in the data, but establishing a cause-and-effect relationship requires requires further rigorous analysis.

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

Table 2. Cross Correlation Matrix of Variables.

S/No.	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	**Tobin's Q**	**1.0000**															
2	**Market-To-Book**	**0.8619***	**1.0000**														
		(0.0000)															
3	**ROA**	**0.1864***	**0.0307***	**1.0000**													
		(0.0000)	**(0.0232)**														
4	**ROE**	**0.1363***	**0.0049**	**0.8959***	**1.0000**												
		(0.0000)	**(0.7175)**	**(0.0000)**													
5	**ROS**	**0.1437***	**-0.0302***	**0.6226***	**0.5183***	**1.0000**											
		(0.0000)	**(0.0254)**	**(0.0000)**	**(0.0000)**												
6	**SIZE**	**-0.1193***	**-0.0264***	**0.1955***	**0.1949***	**-0.1004***	**1.0000**										
		(0.0000)	**(0.0506)**	**(0.0000)**	**(0.0000)**	**(0.0000)**											
7	**CASH DIVIDEND PAYMENT**	**0.3596***	**0.1842***	**0.4995***	**0.4014***	**0.3796***	**0.0899***	**1.0000**									
		(0.0000)	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**										
8	**ASSET INTENSITY (LN)**	**0.0767***	**-0.0486***	**-0.0525***	**-0.0600***	**0.5493***	**-0.4211***	**0.0818***	**1.0000**								
		(0.0000)	**(0.0003)**	**(0.0001)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**									
9	**EMPLOYEE INTENSITY (LN)**	**0.1869***	**0.1722***	**-0.1762***	**-0.1647***	**-0.1279***	**-0.3827***	**-0.0614***	**0.1000***	**1.0000**							
		(0.0000)	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**								
10	**DIVIDEND PAYOUT RATIO**	**0.1059***	**-0.0121**	**0.1772***	**0.1564***	**0.2811***	**-0.0091**	**0.5658***	**0.1965***	**-0.0421***	**1.0000**						
		(0.0000)	**(0.3712)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.5017)**	**(0.0000)**	**(0.0000)**	**(0.0018)**							
11	**DIVIDEND YIELD**	**-0.1143***	**-0.2386***	**0.3329***	**0.2797***	**0.2730***	**0.0945***	**0.6977***	**0.0718***	**-0.1344***	**0.5482***	**1.0000**					
		(0.0000)	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**						
12	**DIVIDEND POLICY**	**0.0709***	**-0.0853***	**0.4294***	**0.3820***	**0.3504***	**0.1732***	**0.6324***	**0.0943***	**-0.1340***	**0.5368***	**0.6627***	**1.0000**				
		(0.0000)	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**					
13	**DEBT RATIO**	**-0.3351***	**0.0628***	**-0.3000***	**-0.1944***	**-0.4025***	**0.2799***	**-0.3845***	**-0.3556***	**-0.0811***	**-0.2736***	**-0.2794***	**-0.3647***	**1.0000**			
		(0.0000)	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**				
14	**FREE CASH FLOW**	**0.1403***	**0.0702***	**0.4911***	**0.4277***	**0.1997***	**0.2344***	**0.3275***	**-0.1614***	**-0.1019***	**0.0947***	**0.1977***	**0.2424***	**-0.1047***	**1.0000**		
		(0.0000)	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**			
15	**DUMMY CHAEBOL**	**0.0701***	**0.0137***	**0.1940***	**0.1787***	**0.1678***	**0.0382***	**0.3864***	**0.0646***	**-0.0722***	**0.3977***	**0.3633***	**0.3704***	**-0.1547***	**0.1408***	**1.0000**	
		(0.0000)	**(0.3097)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0047)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**	**(0.0000)**		
16	**OWN. CONC.**	**-0.1053***	**-0.0753***	**0.0997***	**0.1205***	**0.0403***	**0.0633***	**0.0146**	**-0.0128**	**-0.0790***	**0.0025**	**0.0192**	**-0.0148**	**0.0834***	**0.1009***	**0.4712***	**1.0000**

	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0028)	(0.0000)	(0.2815)	(0.3433)	(0.0000)	(0.8550)	(0.1543)	(0.2727)	(0.0000)	(0.000 0)	(0.000 0)

Note: Obs.= Observations = 5,478; ROA= Return on Assets; ROE= Return on Equity; ROS=Return on Sales; Own. Conc.= Ownership Concentration; Tobin's Q = Firm Value; ***, ** and * indicate statistical significance at 1%, 5% and 10% level, respectively.

4.3. Effect of Dividend Policy on Firm Performance

Table 3 reports the effect of dividend on firm value with Tobin's Q as the proxy for market performance. Dividend policy in Panel A has a coefficient of approximately -0.125 and a t-statistic of -6.933, negatively impacting Tobin's Q, statistically significant at a 1% level, whereas in Panel B it has a coefficient of approximately 0.131, positively impacting Tobin's Q, statistically significant at a 1% level (t-statistic of 7.719). We observe opposite effects, significant in both, but whose magnitude and direction differ. CASH Dividend Payment in Panel A has a coefficient approximately 19.875, positively impacting Tobin's Q, statistically significant at a 1% level (t-statistic 19.924). Panel B has a coefficient approximately 17.079, positively impacting Tobin's Q, statistically significant at a 1% level (t-statistic 17.510). Similar positive impact, significant in both, with slightly lower magnitude in Panel B. Dividend Payout Ratio in both Panel A and Panel B is not statistically significant at conventional levels with (-0.008, t-statistic -0.253) and (-0.006, t-statistic -0.255) respectively. Both are not significant, consistent across panels. Regarding the control variables for both Panel A, Panel Least Squares (PLS) and Panel B, LSDV (Fixed Effects), the Debt Ratio in the panel least squares (PLS) estimation has coefficients ranging from -1.424 to -0.578 all significant at 1%. In the LSDV the coefficients range from -1.294 to -0.670, all significant at 1%. Both methods show that a higher debt ratio is associated with a decrease in Tobin's Q. Free Cash Flow in PLS has coefficients ranging from 0.435 to 2.028, all significant at 1%. LSDV coefficients range from 0.177 to 0.765, all significant at 1%. Both methods agree that higher free cash flow is positively associated with Tobin's Q. For Ownership Concentration (OWN.CONC). in PLS the coefficients range from -0.005 to -0.010, all significant at 1%. In LSDV the coefficients range from -0.004 to -0.006, all significant at 1%. Both methods indicate that higher ownership concentration is associated with a decrease in Tobin's Q. In order to confirm if being a member firm of a Chaebol conglomerate impact the relationship, we introduce DummyChaebol. In PLS estimation method, the coefficients range from 0.027 to 0.376, significant at 1%. In LSDV the coefficients range from -0.028 to 0.200, significant at 1%. Both methods largely suggest that being a part of a Chaebol group is positively associated with Tobin's Q. The variable Ln.Asset_Intensity in PLS has coefficients ranging from -0.087 to -0.018, all significant at 1%. In LSDV, coefficients range from -0.079 to -0.166, all significant at 1%. Both methods show that higher asset intensity is associated with a decrease in Tobin's Q. The variable Ln.Employee_Intensity in Panel A, (PLS) indicates that coefficients range from 0.021 to 0.118, all significant at 1%. LSDV coefficients range from 0.023 to -0.009, all significant at 1%. Both methods agree that higher employee intensity is associated with a higher Tobin's Q. Size in PLS estimations reveal that coefficients range from -0.027 to -0.007, all significant at 1%. The LSDV coefficients range from -0.031 to -0.024, all significant at 1%. Both methods show that larger firms tend to have a lower Tobin's Q. The constant has coefficients ranging from 1.975 to 3.787, all statistically significant at a 1% level, with t-statistics ranging from 3.059 to 19.231. The constant represents the baseline value of Tobin's Q when all independent variables are zero. The positive coefficients suggest a positive baseline value for Tobin's Q. Regarding the model fitness variables, R-squared and Adjusted R-squared in PLS indicate ranges from 0.144 to 0.218 while Adjusted R-squared ranges from 0.142 to 0.217. In the LSDV, R-squared ranges from 0.645 to 0.716 whereas Adjusted R-squared ranges from 0.608 to 0.668. LSDV generally has higher R-squared values, indicating a better fit. In the case of overall model significance, F-statistic and Prob(F-statistic) in the PLS estimations with F-statistics ranging from 114.628 to 190.238 and Prob(F-statistic) is significant at 0.000 for all, has higher F-statistics, suggesting a better overall model fit when compared with LSDV that records F-statistics ranging from 17.472 to 24.343 and Prob(F-statistic) which is significant at 0.000 for all. Taken together, Coefficients for DIVIDEND POLICY, CASH DIVIDEND PAYMENT, and DIVIDEND YIELD differ in sign between PLS and LSDV, indicating sensitivity to estimation methods. When fixed effects are considered, the impact of dividend policy shifts from negative to positive, emphasizing the necessity of accounting for

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

unobservable firm-specific characteristics.These control variables are included to account for various factors that may influence Tobin's Q, and their significant coefficients provide insights into the specific impact each variable has on firm value in the Korean context. The identical trends in control variables across models underline the critical role of fixed effects in capturing unobservable heterogeneity, whereas the varying magnitudes highlight the fine details regarding the association between these control variables and Tobin's Q and contributing to a comprehensive understanding of the relationships in the regression model. These evidences should guide investigators to interpret results with discretion in the Korean context.

Table 3. Effect of Dividend Policy on Firm Value (Tobin's Q).

PANEL A (DEPENDENT VARIABLE: Tobin's Q) LEAST SQUARES					PANEL B (DEPENDENT VARIABLE: Tobin's Q) LSDV (FIXED EFFECTS)			
	1	2	3	4	1	2	3	4
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
DIVIDEND POLICY	-0.125*** (-6.933)				0.131*** (7.719)			
CASH DIVIDEND PAYMENT		19.875*** (19.924)				17.079*** (17.510)		
DIVIDEND YIELD			-21.329*** (-18.343)				-10.409*** (-9.093)	
DIVIDEND PAYOUT RATIO				-0.008 (-0.253)				-0.006 (-0.255)
DEBT RATIO	-0.946*** (-22.825)	-0.578*** (-14.291)	-1.424*** (-19.212)	-0.855*** (-21.421)	-0.786*** (-14.445)	-0.670*** (-12.551)	-1.294*** (-12.070)	-0.865*** (-16.036)
FREE CASH FLOW	1.188*** (9.429)	0.435*** (3.475)	2.028*** (8.756)	1.065*** (8.490)	0.332*** (3.471)	0.177* (1.883)	0.765*** (4.019)	0.355*** (3.686)
OWN.CONC.	-0.005*** (-9.674)	-0.003*** (-4.975)	-0.010*** (-9.612)	-0.005*** (-8.277)	-0.005*** (-7.146)	-0.004*** (-6.272)	-0.009*** (-6.135)	-0.006*** (-8.158)
DUMMYCHAEBOL	0.160*** (7.621)	-0.047*** (-2.293)	0.376*** (9.817)	0.107*** (5.023)	0.027 (1.506)	-0.028 (-1.581)	0.200*** (5.700)	0.074*** (3.990)
LN. ASSET_INTENSITY	-0.024*** (-3.150)	-0.028*** (-3.741)	-0.018 (-1.265)	-0.028*** (-3.588)	-0.087*** (-8.034)	-0.079*** (-7.464)	-0.166*** (-7.761)	-0.089*** (-8.218)
LN.EMPLOYEE_INTENSITY	0.106*** (10.985)	0.117*** (12.537)	0.118*** (6.594)	0.110*** (11.410)	0.021 (1.573)	0.023* (1.766)	-0.009 (-0.345)	0.019 (1.418)

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

SIZE	0.002	-0.021***	0.015	-0.007	-0.027***	-0.031***	-0.017	-0.024***
	(0.414)	(-3.690)	(1.407)	(-1.248)	(-4.111)	(-4.810)	(-1.307)	(-3.571)
Constant	3.334***	3.787***	3.751***	3.555***	2.259***	2.307***	1.975***	2.260***
	(16.247)	(19.231)	(9.945)	(17.448)	(6.960)	(7.281)	(3.059)	(6.917)
Firm Fixed Effects (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
Year Fixed Effects (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
R-squared	0.168	0.218	0.144	0.161	0.702	0.716	0.645	0.699
Adjusted R-squared	0.167	0.217	0.142	0.160	0.672	0.687	0.608	0.668
F-statistic	138.262***	190.238***	114.628***	131.110***	22.750***	24.343***	17.472***	22.366***
Prob(F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

Table 4 reports the effect of dividend policy on firm value with Market-to Book as the proxy for market performance. Likewise the effects observed in when Tobin's Q is regressed on dividend policy, we see a repetition in the case of Market-to-Book. In the Pooled OLS model, a significant negative association emerges between dividend policy and Market-to-Book ratio (Coeff.: -0.225***, t-stat: -6.988). However, the Fixed Effect model reveals a positive relationship, indicating a reversal of the negative association observed in the Pooled OLS model (Coeff.: 0.220***, t-stat: 6.982). The sign reversal implies that there are unobserved firm-specific factors influencing the relationship, suggesting that the initial negative association in the Pooled OLS model might be spurious, influenced by unobserved factors, while the Fixed Effect model, accounting for these factors, suggests a positive association between dividend policy and Market-to-Book ratio. This could imply that firms with certain characteristics, not captured by the observed variables, are more likely to adopt a dividend policy, and these characteristics are positively related to firm value. Cash dividend payment in Panel A has a coefficient of approximately 31.671 and a t-statistic of 17.641, positively impacting Market-to-Book ratio, statistically significant at a 1% level. In Panel B, it has a coefficient of approximately 29.167, positively impacting Market-to-Book ratio, statistically significant at a 1% level (t-statistic of 16.036). We observe consistent positive effects, significant in both. On the contrary, Dividend yield in Panel A has a coefficient of approximately -22.473 and a t-statistic of -20.621, negatively impacting Market-to-Book ratio, statistically significant at a 1% level. In Panel B, it has a coefficient of approximately -12.209, negatively impacting Market-to-Book ratio, statistically significant at a 1% level (t-statistic of -11.498). We observe consistent negative effects, significant in both. Dividend payout ratio in Panel A has a coefficient of approximately -0.057 and a t-statistic of -1.065, negatively impacting Market-to-Book ratio, but not statistically significant. In Panel B, it has a coefficient of approximately -0.023, negatively impacting Market-to-Book ratio, but not statistically significant (t-statistic of -0.528). We observe consistent negative effects, but the significance diminishes in both. In both the Pooled OLS and Fixed Effect models, the debt ratio has a constant and significant positive relationship with the market-to-book ratio (coefficients vary from 0.308 to 0.663), demonstrating its involvement in improving firm value. Free Cash Flow has a significant positive connection in the Pooled OLS model but loses significance in the Fixed Effect model (Coefficients range from 0.306 to 1.994), implying a diverse impact on firm value that could be altered by unobserved firm-specific factors. In both models, ownership concentration has a robust and significant negative relationship with the Market-to-Book ratio (coefficients ranging from -0.009 to -0.010), demonstrating that higher ownership concentration is associated with lower company value. In both models, being a Chaebol is significantly associated with a higher Market-to-Book ratio (coefficients ranging from 0.073 to 0.300), underscoring the distinctive importance of Chaebol status

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

on business value. Asset Intensity, as assessed by the natural logarithm, has a consistently significant negative relationship with the Market-to-Book ratio in both models (coefficients ranging from -0.030 to -0.139), indicating the impact of asset intensity on company value. Employee Intensity has a significant positive connection with the Market-to-Book ratio in the Pooled OLS model but loses significance in the Fixed Effect model (Coefficients around 0.040 to 0.186), indicating that its influence may vary when firm-specific effects are taken into consideration. Firm Size has no significant association with the Market-to-Book ratio in the Pooled OLS model but becomes negatively significant in the Fixed Effect model (coefficients ranging from -0.004 to -0.044), implying that the impact of firm size on firm value is nuanced and dependent on individual firm characteristics.

Table 4. Effect of Dividend Policy on Firm Value (Market-to Book).

PANEL A (DEPENDENT VARIABLE: Market-To-Book) POOLED OLS					PANEL B (DEPENDENT VARIABLE: Market-To-Book) FIXED EFFECT			
	1	2	3	4	1	2	3	4
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
DIVIDEND POLICY	-0.225***				0.220***			
	(-6.988)				(6.982)			
CASH DIVIDEND PAYMENT		31.671***				29.167***		
		(17.641)				(16.036)		
DIVIDEND YIELD			-22.473***				-12.209***	
			(-20.621)				(-11.498)	
DIVIDEND PAYOUT RATIO				-0.057				-0.023
				(-1.065)				(-0.528)
DEBT RATIO	0.308***	0.913***	0.162***	0.463***	0.798***	0.999***	0.512***	0.663***
	(4.156)	(12.537)	(2.333)	(6.493)	(7.897)	(10.039)	(5.145)	(6.627)
FREE CASH FLOW	1.702***	0.475***	1.994***	1.487***	0.306*	0.041	0.478***	0.343**
	(7.560)	(2.110)	(9.188)	(6.637)	(1.724)	(0.233)	(2.707)	(1.920)
OWN.CONC.	-0.009***	-0.005***	-0.011***	-0.008***	-0.010***	-0.008***	-0.012***	-0.011***
	(-9.500)	(-5.130)	(-11.764)	(-8.253)	(-7.182)	(-6.357)	(-8.757)	(-8.138)
DUMMYCHAEBOL	0.300***	-0.040	0.461***	0.219***	0.073***	-0.022***	0.251***	0.155***
	(8.013)	(-1.095)	(12.865)	(5.720)	(2.175)	(-0.679)	(7.708)	(4.517)
LN. ASSET INTENSITY	-0.030***	-0.037***	-0.032***	-0.035***	-0.139***	-0.125***	-0.141***	-0.143***
	(-2.180)	(-2.723)	(-2.434)	(-2.545)	(-6.936)	(-6.375)	(-7.100)	(-7.115)
LN.EMPLOYEE INTENSITY	0.186***	0.205***	0.149***	0.193***	0.040	0.044*	0.023	0.037
	(10.797)	(12.180)	(8.883)	(11.189)	(1.578)	(1.754)	(0.921)	(1.448)
SIZE	-0.004	-0.042***	-0.004	-0.021**	-0.044***	-0.051***	-0.028**	-0.038***
	(-0.348)	(-4.216)	(-0.357)	(-1.997)	(-3.600)	(-4.231)	(-2.269)	(-3.113)
Constant	5.273***	6.041***	4.705***	5.659***	3.063***	3.145***	2.711***	3.074***
	(14.383)	(17.045)	(13.310)	(15.549)	(5.080)	(5.323)	(4.528)	(5.068)
Firm Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
Year Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
R-squared	0.060	0.103	0.120	0.052	0.636	0.651	0.642	0.633
Adjusted R-squared	0.059	0.101	0.119	0.050	0.598	0.615	0.605	0.595
F-statistic	43.540***	78.115***	93.145***	37.254***	16.853***	17.955***	17.294***	16.597***
Prob(F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

As a whole, our findings show a dynamic interaction of control variables on firm value, emphasizing the significance of taking into account both observed and unobserved factors when analyzing their impact within the Korean market.

5. Discussion

The observed trend in the relationship between dividend policy and firm value, as measured by Tobin's Q and the Market-to-Book ratio, displays noteworthy patterns. The Pooled OLS model consistently finds a negative relationship between dividend policy and Market-to-Book ratio (Coeff.: -0.225***, t-stat: -6.988), replicating Tobin's Q findings. The Fixed Effect model, on the other hand, reveals a notable reversal, implying that unobserved firm-specific factors may impact this association. The positive connection in the Fixed Effect model (Coeff.: 0.220***, t-stat: 6.982) suggests that firms

 doi:10.20944/preprints202401.1015.v1

who adopt a dividend policy may have specific qualities that are positively related to company value that are not sufficiently reflected by observed variables. This elaborate perspective emphasizes the significance of accounting for specific company effects when evaluating the impact of dividend policy on firm value in the Korean market.

Analyzing specific dividend policy proxies deepens the account. Cash dividend payments consistently have a positive impact on the Tobin's Q and Market-to-Book ratio in both models, indicating how significant they are in increasing company worth. Dividend yield, on the other hand, regularly has a negative influence, highlighting potential complications in its relationship to company value. The consistency of negative effects in both models shows a strong relationship, although the varying magnitudes imply hidden influences at work. Notably, while the dividend payout ratio is always negative, it loses statistical significance in both models, highlighting the importance of conservative interpretation. It is important to note that two agency issues cast shadows on the rich environment of Korean corporate finance: Type 1 involves conflicts between shareholders and managers, which are common in widely dispersed firms due to information asymmetry (Jensen& Meckling, 1976)[4], while Type 2 depicts minority shareholder expropriation, which is common in family firms with higher ownership concentrations (Wang, 2006)[5]. While widely distributed organizations typically face Type 1 conflicts as a result of information asymmetry, family firms (Chaebols), which have higher ownership concentration and close-knit decision-making, experience smaller Type 1 conflicts but may be involved in minority shareholder expropriation.

The entrenchment theory (Stulz, 1990)[6] highlights such agency issues between family and other stockholders. The empirical evidence have important consequences for numerous stakeholders in Korean firms, especially when considering the distinct agency problems associated with Chaebol and non-chaebol entities, orienting with the entrenchment and alignment hypotheses. Positive effects between dividend policies and firm value imply potential benefits for Chaebol shareholders. Dividend payments can be considered as indicators of financial health and value generation, which leads to greater shareholder wealth. Dividend policy should be monitored by shareholders as a factor impacting their investment decisions. Similar favorable relationships show that non-Chaebol shareholders may benefit from dividend policy as well. Shareholders should interact with management to ensure that dividend decisions are consistent with long-term wealth generation. ***The consistent negative relationship between dividend yield and firm value reveals potential agency issues inherent in financial signaling and future prospects. This striking trend highlights three major agency issues. First, Korean firms with greater dividend yields, indicating financial instability, suffer lower valuations under information asymmetry and adverse selection, showing management's difficulty in convincing investors about future growth in the face of information asymmetry. Second, within managerial entrenchment, the negative connection means that managers, particularly in Chaebol enterprises, fight dividends, putting personal interests over minority shareholder wealth and potentially undermining firm value. Third, agency costs and misalignment demonstrate a persistent negative effect associated with managers withholding dividends, saving capital for non-value-enhancing activities, and leading to misalignment with shareholder interests.*** These complex agency relations highlight the varied issues confronting Korean enterprises, which need sensitive governance approaches to achieve optimal value creation. Taking into account the type 2 (controlling shareholders extracting private benefits thereby expropriating minority shareholders) and type 1 (managers prioritizing personal interests over shareholder interests) agency problems associated with Chaebol and non-Chaebol firms, respectively, these findings suggest that aligning dividend policies with value-maximizing strategies can reduce agency conflicts. Understanding current agency issues is critical for stakeholders in developing effective governance systems and compensation structures. Further research into the specific causes underlying the negative association between dividend yield and firm value can provide more insight into the dynamics of agency difficulties within Korean business groups.

In Table 5, the result of regression analysis testing the effect of dividend policy on firm performance (Return On Assets) is presented. In the Pooled OLS (Panel A) Model 1, the dependent variable is Return on Assets (also known as ROA) while Dividend Policy is the independent variable

 doi:10.20944/preprints202401.1015.v1

of interest. The coefficient is 0.031***, and the t-statistic is (19.918). This evidence shows that the coefficient for the Dividend Policy variable is statistically significant at the 1% level. This suggests a positive relationship between Dividend Policy and ROA. When compared to the Fixed Effects Model (Panel B Model 1), we observe that the coefficient is 0.024*** and the t-statistic is (12.161). In the Fixed Effects model, the Dividend Policy coefficient stays statistically significant at the 1% level. The minor decrease in the coefficient implies that the fixed effects model accommodates for individual differences. In the Pooled OLS (Panel A) Model 2, Dependent Variable remains Return On Assets (ROA) while Dividend Payment in Cash is the independent variable. The coefficient is 2.163***, and the t-statistic is (25.091). The Cash Dividend Payment coefficient in Model 2 is statistically significant at the 1% level, indicating a large positive influence on ROA. When compared to the Fixed Effects Model (Panel B Model 2), the coefficient is 2.063***, and the t-statistic is (17.779). In the Fixed Effects model, the coefficient for Cash Dividend Payment remained highly significant at the 1% level, indicating the robustness of the positive relationship with ROA. In Pooled OLS (Panel A) Model 3, the dependent variable is ROA (Return on Assets) while Dividend Yield is the independent variable. The coefficient is 0.707***, and the t-statistic is (12.861). At the 1% significance level, Model 3 demonstrates a statistically significant positive relationship between Dividend Yield and ROA. When compared to the Fixed Effects Model (Panel B Model 3), the coefficient is 0.599***, and the t-statistic is (8.751). The positive relationship between Dividend Yield and ROA remains significant in the Fixed Effects model at the 1% level, but with a slightly decreased coefficient. Return On Assets (ROA) is the dependent variable in Model 4 , Pooled OLS (Panel A), whereas Dividend Payout Ratio is the independent variable. Model 4 demonstrates a statistically significant positive correlation between Dividend Payout Ratio and ROA at the 1% significance level, with a Coefficient of 0.010*** and t-Statistic: (3.807). When compared to the Fixed Effects Model (Panel B Model 4), the coefficient is -0.004 and the t-Statistic is (-1.552). When firm-specific factors are taken into account, the relationship between Dividend Payout Ratio and ROA turns negative and statistically insignificant at the 12% level in the Fixed Effects model. Looking at the control variables in the Pooled OLS vs. Fixed Effects Model, we found that Debt Ratio in the Pooled OLS (Panel A) has a coefficient range (Model 1 to 4) of -0.083*** to -0.055*** and an t-Statistic of (-23.516) to (-15.668). The coefficients in (Model 1 to 4) range from -0.116*** to -0.092*** in the Fixed Effects (Panel B), whereas the t-statistic ranges from (-18.035) to (-14.429). In comparison, the Debt Ratio consistently demonstrates a strong negative relationship with ROA across both Pooled OLS and Fixed Effects models, with slightly bigger coefficients in the Fixed Effects model. The negative effect suggests that excessive leverage reduces the firm's performance with specific reference to its return on assets. Free Cash Flow in Pooled OLS (Panel A) has coefficients (Model 1 to 4) ranging from 0.301*** to 0.368***, t-Statistics ranging from (27.902) to (33.364). Equally, the coefficients in (Model 1 to 4) ranges from 0.217*** to 0.238*** while t-Statistic ranges from (19.446) to (20.799) in the Fixed Effects (Panel B). In both the Pooled OLS and Fixed Effects estimations, Free Cash Flow has a positive and statistically significant relationship with ROA, with identical magnitudes. The result suggests that firms with augmented cash generation are associated with higher firm performance with respect to return on assets. Ownership Concentration (Own.Conc.) in Pooled OLS (Panel A) has coefficients in (Model 1 to 4) that ranges from 0.00016*** to 0.00033*** and t-Statistics from (3.420) to (7.327) while in the Fixed Effects (Panel B) the coefficients in (Model 1 to 4) ranges from 0.00018*** to 0.00037***, t-Statistics from (2.020) to (4.408). These results indicate that Ownership Concentration has a consistent positive correlation with ROA in both Pooled OLS and Fixed Effects models. DummyChaebol in the Pooled OLS (Panel A) has coefficients in (Model 1 to 4) that range from -0.008*** to 0.006*** t-Statistic: (-4.318) to (3.188) while in the Fixed Effects (Panel B) we observe coefficients in (Model 1 to 4) ranging from -0.007*** to 0.007*** and t-Statistics ranging from (-3.262) to (2.960). DummyChaebol exhibits varied relationships with ROA in both models, with changes in significant levels among models. The evidence from DummyChaebol in Pooled OLS (Panel A),coefficients ranging from -0.008 to 0.006 provide some insights. The negative coefficients indicate a probable detrimental influence on ROA for enterprises linked with Chaebol conglomerates. The different coefficients across models suggest that the association between Chaebol affiliation and ROA is model-dependent.T-Statistics Range from (-4.318) to (3.188). The continuously

 doi:10.20944/preprints202401.1015.v1

high absolute values of t-statistics reflect the statistical importance of the observed correlations. DummyChaebol in Fixed Effects (Panel B) has coefficients ranging from -0.007 to 0.007.The negative coefficients remain, indicating a probable negative connection with ROA. The association varies between models, as with Pooled OLS. T-Statistics Range from (-3.262) to (2.960): The absolute t-statistics remain rather high, underscoring the statistical significance of the observed connections. We can infer that the consistently negative coefficients show that enterprises linked with Chaebol conglomerates may have lower ROA than non-affiliated firms on average. The variable relationships as evidenced by the different coefficients and t-statistics across models suggest that the impact of Chaebol affiliation on ROA is delicate and may be modified by unique qualities or behaviors represented in each model. The considerations for managers of Chaebol-affiliated enterprises should be that they carefully examine the impact of such affiliation on financial performance, taking into account the elaboration conveyed by various dividend policy proxies. If negative connections persist, strategic changes in governance or operational procedures may be addressed to improve corporate performance. The diverse connections between models point to the need for further research into the specific processes by which Chaebol affiliation effects company performance. Considering contextual factors impacting the relationship, such as unique industry dynamics or corporate governance methods inside Chaebol conglomerates, may provide further insights. Asset Intensity (Ln) in Pooled OLS (Panel A) has coefficients in (Model 1 to 4) ranging from -0.005*** to -0.004*** and t-Statistics ranging from (-7.275) to (-5.970). In the Fixed Effects (Panel B), Asset Intensity has coefficients in (Model 1 to 4) ranging from -0.007*** to -0.006*** , t-Statistics: (-5.421) to (-4.456). In both the Pooled OLS and Fixed Effects models, Asset Intensity displays a consistently negative association with ROA. Employee Intensity(Ln) in Pooled OLS (Panel A) has coefficient in (Model 1 to 4) ranging from -0.007*** to -0.006*** ,t-Statistic: (-7.980) to (-6.526). In the Fixed Effects (Panel B), Employee Intensity has coefficients in (Model 1 to 4) ranging from -0.014*** to -0.014*** and t-Statistics: (-8.736) to (-8.436). Employee Intensity has a consistently negative relationship with ROA in both Pooled OLS and Fixed Effects models. Size in Pooled OLS (Panel A) has coefficient in (Model 1 to 4) ranging from 0.002 to 0.004*** t-Statistic: (4.120) to (8.592). In the Fixed Effects (Panel B), the coefficients in (Model 1 to 4) ranges from 0.0005 to 0.001*** with t-Statistic ranging from (0.646) to (1.761). Size has a positive connection with ROA in both Pooled OLS and Fixed Effects models, with differing levels of significance.Considering the model fitness variables in Pooled OLS, R-squared explains between 34.8% to 41.4% whereas in the Fixed Effects, model it explains between 57.2% and 59.7% of the variation in ROA. R-squared and adjusted R-squared, in the Fixed Effects model often has higher values indicating superior goodness-of-fit. However, the Pooled OLS models have higher F-statistics, indicating better overall model fit. Considering the Prob(F-statistic), all models have extremely significant Prob(F-statistic) values, demonstrating overall model significance. **Discussion:** Generally, with an emphasis on managerial alignment and entrenchment hypotheses, the regression results address Type 1 and Type 2 agency difficulties and offer insightful information to Korean companies listed on KOSPI(Wang, 2006). Under Type 1 Agency Problem, the positive and statistically significant coefficient (0.031) for Dividend Policy in the Pooled OLS model suggests that, on average, firms paying dividends have a positive impact on Return On Assets (ROA). This aligns with the expectation that dividends can signal positive financial health and enhance firm performance. The coefficient (0.024) remains significant in the Fixed Effects model, indicating that even after controlling for individual firm characteristics, a positive association between Dividend Policy and ROA persists. The implications for managers and shareholders include that when managers focus on a transparent and consistent dividend policy it could signal financial stability and positively impact firm performance. And for shareholders dividend-paying firms may be perceived as more attractive, potentially leading to increased shareholder value. Under the second regression equation model, Cash Dividend Payment shows positive coefficients of (2.163) and (2.063) both OLS and LSDV (fixed effects) estimations respectively. This evidence suggests that firms paying cash dividends experience a substantial positive impact on ROA. The significance persisting in the Fixed Effects model, indicates robustness to individual firm characteristics. This also has implications for managers and shareholders.Simply put, adopting a cash dividend payment strategy can be a strategic decision for

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

managers to enhance firm performance and shareholder value. With a positive coefficient of (0.707), Dividend Yield has a positive impact on ROA, supporting the hypothesis that high dividend yield positively influences firm performance.

With a positive coefficient of (0.599) in the Fixed Effects Model, the statistical significance endures, indicating a consistent effect. The implication for managers and shareholders is that emphasizing a higher dividend yield may attract investors and contribute positively to firm performance. Under the (Type 2 Agency Problem), Dividend Payout Ratio with a positive coefficient (0.010) and its highly statistical significance at 1% in the OLS estimation shows a positive impact of the Dividend Payout Ratio on ROA. However, in the Fixed Effects Model estimation after accounting for firm specific characteristics, the coefficient becomes negative (-0.004) and statistically insignificant (t-statistic = -1.552). The diminishing significance in the Fixed Effects model indicates a shadowed association. The implication for managers and shareholders is that while a positive relationship exists in the Pooled OLS model, the Fixed Effects model suggests precaution. That is to say high payout ratios might not uniformly benefit all firms.

For Chaebol Firms vs. Non-Chaebol Firms, the DummyChaebol Coefficients with negative and positive coefficients convey some insights. Chaebol firms exhibit negative coefficients across dividend policy measures in both OLS and LSDV estimation methods. In the regression equation models 1 and 2, the coefficients are negative and statistically significant, but in equation model 4, the coefficient becomes positive and statistically significant implying a potential rift and adverse effect on ROA. The implication for managers and shareholders of Chaebol Firms is that the negative coefficients suggest that Chaebol affiliation might be associated with lower firm performance. Managers should carefully evaluate dividend policies and consider tailoring strategies to mitigate potential negative impacts. Addressing Type 1 Agency problem which is managerial alignment hypothesis, positive associations between dividend policies and firm performance suggest that dividends can align managerial and shareholder interests. Type 2 Agency problem also known as managerial entrenchment or minority shareholder expropriation manifests in the controversial and shadowed findings, particularly the reduced significance in the Fixed Effects model for Dividend Payout Ratio (Stulz, 1990)[6]. The implication is that high payout ratios might not uniformly benefit all firms shareholders, indicating a potential entrenchment concern. Managers should be cognizant of the dual role dividends play in aligning and potentially entrenching managerial interests. Striking a balance is crucial. The results suggest that dividend policies have signification implications for Korean firms on KOSPI. Managers and shareholders should carefully consider these findings in crafting dividend policies, especially in the context of Chaebol and non-Chaebol firms. Balancing alignment and potential entrenchment concerns is vital for fostering sustainable firm performance (Jensen& Meckling, 1976)[4].

Table 5. Effect of Dividend Policy on Firm Performance (Return On Assets).

PANEL A (DEPENDENT VARIABLE: Return On Assets) POOLED OLS					PANEL B (DEPENDENT VARIABLE: Return On Assets) FIXED EFFECT			
	1	2	3	4	1	2	3	4
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
DIVIDEND POLICY	0.031***				0.024 ***			
	(19.918)				(12.161)			
CASH DIVIDEND PAYMENT		2.163***				2.063***		
		(25.091)				(17.779)		
DIVIDEND YIELD			0.707***				0.599***	
			(12.861)				(8.751)	
DIVIDEND PAYOUT RATIO				0.010***				-0.004
				(3.807)				(-1.552)
DEBT RATIO	-0.062***	-0.055 ***	-0.075 ***	-0.083 ***	-0.101 ***	-0.092 ***	-0.107 ***	-0.116 ***

 doi:10.20944/preprints202401.1015.v1

	(-17.477)	(-15.668)	(-21.361)	(-23.516)	(-15.657)	(-14.429)	(-16.743)	(-18.035)
FREE CASH FLOW	0.339***	0.301***	0.354***	0.368***	0.234***	0.217***	0.232***	0.238***
	(31.491)	(27.902)	(32.294)	(33.364)	(20.764)	(19.446)	(20.398)	(20.799)
OWN.CONC.	0.00032***	0.00033***	0.00023***	0.00016***	0.00033***	0.00037***	0.00023***	0.00018***
	(6.848)	(7.327)	(4.820)	(3.420)	(3.837)	(4.408)	(2.635)	(2.020)
DUMMYCHAEBOL	-0.004***	-0.008***	0.001	0.006***	-0.003***	-0.007***	0.0001	0.007***
	(-2.474)	(-4.318)	(0.429)	(3.188)	(-1.466)	(-3.262)	(0.071)	(2.960)
LN. ASSET INTENSITY	-0.005***	-0.004***	-0.004***	-0.004***	-0.006***	-0.006***	-0.007***	-0.007***
	(-7.275)	(-5.970)	(-5.974)	(-6.048)	(-5.020)	(-4.456)	(-5.421)	(-5.320)
LN.EMPLOYEE INTENSITY	-0.006***	-0.006***	-0.006***	-0.007***	-0.014***	-0.014***	-0.014***	-0.014***
	(-7.070)	(-7.722)	(-6.526)	(-7.980)	(-8.665)	(-8.736)	(-8.436)	(-8.729)
SIZE	0.002***	0.003***	0.004***	0.004***	0.001	0.0005	0.001	0.001
	(4.120)	(6.208)	(7.789)	(8.592)	(0.943)	(0.646)	(1.086)	(1.761)
Constant	-0.166***	-0.196***	-5.974***	-0.218***	-0.271***	-0.265***	-0.254***	-0.269***
	(-9.460)	(-11.489)	(-10.659)	(-12.154)	(-7.073)	(-7.038)	(-6.582)	(-6.903)
Firm Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
Year Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
R-squared	0.391	0.414	0.366	0.348	0.584	0.597	0.578	0.572
Adjusted R-squared	0.390	0.413	0.365	0.347	0.541	0.556	0.535	0.528
F-statistic	438.596***	483.139***	394.340***	365.466***	13.538 ***	14.301 ***	13.215 ***	12.879 ***
Prob(F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

In Table 6, the result of regression analysis testing the effect of dividend policy on firm performance(Return on Equity) is presented. In Model 1, DIVIDEND POLICY (Pooled OLS) has a coefficient of 0.0566***, t-Statistic = 19.0833 whereas in the Fixed Effects estimation, the coefficient is 0.0461***, t-Statistic = 11.7037

Table 6. Effect of Dividend Policy on Firm Performance (Return On Equity).

PANEL A (DEPENDENT VARIABLE: Return On Equity) POOLED OLS					PANEL B (DEPENDENT VARIABLE: Return On Equity) FIXED EFFECT			
	1	2	3	4	1	2	3	4
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
DIVIDEND POLICY	0.0566***				0.0461***			
	(19.0833)				(11.7037)			
CASH DIVIDEND PAYMENT		3.1360***				3.0494***		
		(18.4558)				(13.1793)		
DIVIDEND YIELD			1.1459***				0.9368***	
			(10.7880)				(6.9333)	
DIVIDEND PAYOUT RATIO				0.0238***				0.0018
				(4.7007)				(0.3255)
DEBT RATIO	-0.0577***	-0.0565***	-0.0839***	-0.0948***	-0.1545***	-0.1473***	-0.1700***	-0.1816***
	(-8.4533)	(-8.2024)	(-12.3980)	(-14.0508)	(-12.2143)	(-11.6338)	(-13.4335)	(-14.3786)

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

FREE CASH FLOW	0.5251***	0.4826***	0.5554***	0.5777***	0.3827***	0.3591***	0.3808***	0.3912***
	(25.2692)	(22.6619)	(26.2525)	(27.2323)	(17.2196)	(16.1262)	(16.9572)	(17.3637)
OWN.CONC.	0.0007***	0.0007***	0.0005***	0.0005***	0.0008***	0.0008***	0.0006***	0.0005***
	(7.9865)	(7.3901)	(5.7691)	(4.8787)	(4.5682)	(4.6228)	(3.3384)	(3.0283)
DUMMYCHAEBOL	-0.0090***	-0.0082**	0.0025	0.0087**	-0.0082**	-0.0102**	-0.0004	0.0070*
	(-2.6035)	(-2.3798)	(0.7120)	(2.4168)	(-1.9701)	(-2.4556)	(-0.0878)	(1.6280)
LN. ASSET INTENSITY	-0.0075***	-0.0058***	-0.0060***	-0.0064***	-0.0135***	-0.0125***	-0.0145***	-0.0143***
	(-5.8776)	(-4.5116)	(-4.6185)	(-4.8648)	(-5.3690)	(-4.9833)	(-5.7277)	(-5.6343)
LN.EMPLOYEE INTENSITY	-0.0083***	-0.0093***	-0.0081***	-0.0100***	-0.0202***	-0.0202***	-0.0199***	-0.0210***
	(-5.2313)	(-5.8783)	(-4.9410)	(-6.1255)	(-6.3834)	(-6.4057)	(-6.2351)	(-6.5358)
SIZE	0.0029***	0.0052***	0.0064***	0.0071***	0.0008	0.0007	0.0012	0.0020
	(3.0199)	(5.4846)	(6.6502)	(7.2806)	(0.5225)	(0.4683)	(0.7750)	(1.3007)
Constant	-0.2679***	-0.3326***	-0.3195***	-0.3626***	-0.4004***	-0.3922***	-0.3745***	-0.4023***
	(-7.9188)	(-9.9168)	(-9.2731)	(-10.5207)	(-5.3092)	(-5.2188)	(-4.9149)	(-5.2564)
Firm Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
Year Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
R-squared	0.2923	0.2894	0.2609	0.2482	0.4968	0.5004	0.4879	0.4829
Adjusted R-squared	0.2912	0.2883	0.2598	0.2471	0.4446	0.4485	0.4347	0.4292
F-statistic	282.2895***	278.3891***	241.2577***	225.6452***	9.5119***	9.6497***	9.1780***	8.9979***
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

The evidence in both models show a positive association between dividend policy and ROE. Pooled OLS suggests a stronger positive effect (larger coefficient and higher t-statistic) compared to Fixed Effects, indicating that considering firm-specific effects diminishes the observed impact. In Model 2, CASH DIVIDEND PAYMENT in the OLS estimation has coefficient = 3.1360***, t-Statistic = 18.4558 while in the Fixed Effects estimation, the coefficient = 3.0494***, t-Statistic = 13.1793. This result suggest that both models show a positive association between cash dividend payment and ROE. The impact is slightly lower in the Fixed Effects model, suggesting that firm-specific effects moderate the relationship. In Model 3, DIVIDEND YIELD under d OLS has coefficient = 1.1459***, t-Statistic = 10.7880 whereas in the Fixed Effect model, the coefficient = 0.9368***, t-Statistic = 6.9333. In means that both models indicate a positive association between dividend yield and ROE. The Fixed Effects model equally shows a lower impact, suggesting that firm-specific factors moderate the relationship. In Model 4, DIVIDEND PAYOUT RATIO in OLS has coefficient = 0.0238***, t-Statistic = 4.7007 and in the Fixed Effects, the coefficient = 0.0018, t-Statistic = 0.3255. Both models suggest a positive association, but the impact is more pronounced in the Pooled OLS model. With the t-statistics exceeding the conventional significance levels, the Fixed Effects model indicates a weaker relationship after accounting for firm-specific effects.

Table 6 results have implications for Type 1 and Type 2 Agency Problems. Under Type 1 Agency Problem (Managerial Alignment), the reported consistent positive relationships between dividend policy proxies and Return on Equity (ROE) suggest that firms, both Chaebol and non-Chaebol, tend to match managerial interests with shareholder value through dividend-related behaviors. Managers may establish dividend policies that lead to improved business performance, as shown in ROE, because they are motivated by aligning their interests with shareholders.Under the Type 2 Agency

 doi:10.20944/preprints202401.1015.v1

Problem (Managerial Entrenchment or Minority Shareholder Expropriation), the statistically insignificant coefficient for DIVIDEND PAYOUT RATIO (DPR) in the Fixed Effects model (Model 4) shows a probable divergence in findings. The stronger positive association in the Pooled OLS model versus the weaker relationship in the Fixed Effects model suggests that some firm-specific factors mitigate the impact of DPR on ROE. In the context of Type 2 agency concerns, this disparity could indicate that, after accounting for firm-specific variables, the entrenchment or expropriation consequences of large dividend payout ratios may reduce. This result reflect Rozeff (1982)[34] and Easterbrook (1984)[35] opinion that dividends play a vital role in addressing the agency issue (Faccio, Lang, & Young, 2001)[36]. After accounting for firm-specific effects, the Fixed Effects model recommends employing caution when assessing the direct influence of DPR on ROE. The cumulative positive relationships point to a general tendency of managerial decisions that favor shareholder interests through dividends. The different DPR results emphasize the need of taking firm-specific features into account when assessing the intricate relationship between dividend policy and company profitability, particularly in the context of potential entrenchment issues. These findings help to solve both Type 1 and Type 2 agency concerns, highlighting the importance of specialized governance structures and regulations tailored to the unique characteristics of business entities in the Korean market.

In Table 7, the result of regression analysis testing the effect of dividend policy on firm performance(Return on Sales) is presented. In Panel A (Pooled OLS), Model 1 indicates that the coefficient for "DIVIDEND POLICY" is 0.0651, t-statistic =15.1575, In Panel B (Fixed Effects), for Model 1, the "DIVIDEND POLICY" coefficient is 0.0399 with a t-statistic of 7.6866. Result suggests a highly significant positive association with Return On Sales (ROS) in both estimations. This implies that firms with a higher dividend policy tend to have higher ROS. In Model 2, CASH DIVIDEND PAYMENT with coefficient (4.6423, t-statistic =19.1589) and (3.2707, t-statistic =10.7604) in OLS and Fixed Effect estimations respectively indicates a highly significant positive association between cash dividend payment and ROS. Firms with higher cash dividend payments tend to have higher ROS. DIVIDEND YIELD in Model 3 has the coefficient of (1.4876, t = 9.7803) and (0.9804, t = 5.5454) the OLS and fixed effect estimations indicating a significant positive relationship with ROS. Model 4 - Panel A and B reveal that DIVIDEND PAYOUT RATIO has the coefficient of 0.0159 (t = 2.1878) and 0.0159 (t = 2.1878), indicating a significant positive relationship with ROS. The positive effects of all dividend proxies (DIVIDEND POLICY, CASH DIVIDEND PAYMENT, DIVIDEND YIELD, DIVIDEND PAYOUT RATIO) on Return On Sales (ROS) in both Panel A and Panel B across Models 1 to 4 suggest that, on average, firms that follow dividend policies, pay cash dividends, and have higher dividend yields and payout ratios have higher ROS. The negative coefficient of DUMMYCHAEBOL in some models (e.g., Model 2, Panel A) shows that Chaebols may experience Type 1 agency concerns when it comes to cash dividend payment. This negative link means that Chaebols, which are characterized by concentrated ownership and potential conflicts of interest, may face problems that harm business performance. However, it is critical to highlight that the interpretation is context-dependent, and a thorough examination of various models and panels is required for an in-depth comprehension of agency issues in Chaebols. All the other control variables and model fitness show consistent effects like the patterns observed in the case of ROA and ROE Our empirical evidence and results from our investigations of ROA, ROE and ROS suggests consistency with signaling theory, which convey that dividend policies can act as indicators of corporate success and value. The differences in strength and statistical significance levels among the proxies show that different components of dividend policy contribute significantly to firm performance. For example, statistical significance levels show the amount of certainty in the observed associations. Bhattacharya (1979)[1] and subsequent signaling models, including John and Williams (1985)[2] and Miller and Kevin (1985)[13], propose that dividend policies signal firms' future profitability and cash flows to the market, commanding a premium from shareholders. In our regression analysis (Table 7), we find a highly significant positive association between "DIVIDEND POLICY" and Return on Sales (ROS) in both Pooled OLS (coefficient = 0.0651, t-statistic = 15.1575) and Fixed Effects (coefficient = 0.0399, t-statistic = 7.6866) models. Additionally, cash dividend payment, dividend yield, and dividend payout ratio exhibit highly

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

significant positive relationships with ROS. Our empirical evidence aligns with signaling theory, suggesting that dividend policies serve as indicators of corporate success and value, with implicit contributions from different components of dividend policy. Interpretation of the negative coefficient of DUMMYCHAEBOL underscores potential agency concerns in Chaebols, emphasizing the context-dependent nature of the findings. These consistent patterns across various models highlight the impact of dividend policies on firm performance in the unique context of Korean business groups.

Table 7. Effect of Dividend Policy on Firm Performance (Return On Sales).

PANEL A (DEPENDENT VARIABLE: Return On Sales) POOLED OLS					PANEL B (DEPENDENT VARIABLE: Return On Sales) FIXED EFFECT			
	1	2	3	4	1	2	3	4
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
DIVIDEND POLICY	0.0651***				0.0399***			
	(15.1575)				(7.6866)			
CASH DIVIDEND PAYMENT		4.6423***				3.2707***		
		(19.1589)				(10.7604)		
DIVIDEND YIELD			1.4876***				0.9804***	
			(9.7803)				(5.5454)	
DIVIDEND PAYOUT RATIO				0.0711***				0.0159***
				(9.8908)				(2.1878)
DEBT RATIO	-0.1002***	-0.0844***	-0.1279***	-0.1335***	-0.1860***	-0.1726***	-0.1973***	-0.2071***
	(-10.1458)	(-8.5918)	(-13.1950)	(-13.9373)	(-11.1745)	(-10.3784)	(-11.9135)	(-12.5560)
FREE CASH FLOW	0.6104***	0.5287***	0.6413***	0.6632***	0.3519***	0.3248***	0.3484***	0.3610***
	(20.3142)	(17.4090)	(21.1682)	(22.0245)	(12.0289)	(11.1056)	(11.8572)	(12.2738)
OWN.CONC.	0.0006***	0.0006***	0.0004***	0.0005***	0.0008***	0.0008***	0.0006***	0.0006***
	(4.6377)	(4.9876)	(3.1119)	(3.4604)	(3.5142)	(3.8104)	(2.7661)	(2.7529)
DUMMYCHAEBOL	-0.0023	-0.0094*	0.0089*	0.0053	0.0059	0.0005	0.0113**	0.0149***
	(-0.4596)	(-1.8993)	(1.7810)	(1.0249)	(1.0777)	(0.0913)	(2.0781)	(2.6480)
LN. ASSET INTENSITY	0.0769***	0.0789***	0.0786***	0.0770***	0.0478***	0.0491***	0.0469***	0.0471***
	(41.6715)	(43.3833)	(42.1772)	(41.1126)	(14.4781)	(14.9228)	(14.1675)	(14.2048)
LN.EMPLOYEE INTENSITY	-0.0426***	-0.0434***	-0.0420***	-0.0439***	-0.0462***	-0.0460***	-0.0458***	-0.0471***
	(-18.5264)	(-19.1512)	(-17.9279)	(-18.8936)	(-11.0822)	(-11.1072)	(-10.9397)	(-11.2398)
SIZE	0.0003	0.0022	0.0042***	0.0046***	-0.0030	-0.0033	-0.0028	-0.0019
	(0.1952)	(1.6231)	(3.0041)	(3.3298)	(-1.4703)	(-1.6512)	(-1.3690)	(-0.9629)
Constant	-0.9034***	-0.9657***	-0.9553***	-1.0006***	-0.8209***	-0.8120***	-0.7936***	-0.8316***
	(-18.4667)	(-20.1902)	(-19.3628)	(-20.4516)	(-8.2685)	(-8.2239)	(-7.9605)	(-8.3216)
Firm Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
Year Fixed (dummy variables)	No	No	No	No	Yes	Yes	Yes	Yes
R-squared	0.4390	0.4522	0.4255	0.4257	0.6695	0.6731	0.6676	0.6658
Adjusted R-squared	0.4382	0.4514	0.4246	0.4248	0.6351	0.6392	0.6331	0.6312
F-statistic	534.9007***	564.2621***	506.2281***	506.6930***	19.5134***	19.8426***	19.3490***	19.1982***
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

Table 13 provides an integrated analysis of the effect of various dividend policy measures on firm performance and value as captured earlier in Tables 8–12. Under the Chaebol firms, the first firm value proxy is Tobin's Q. Positive coefficients for Cash Dividend Payment (31.4857) and Dividend Payout Ratio (0.1873) suggests a positive association with Tobin's Q, supporting the alignment hypothesis, that is the alignment of managerial interest with that of the shareholders. Negative coefficient for Dividend Yield (-17.6897) indicates a potential negative association, suggesting caution should be applied in the interpretation. An alternative firm value proxy measure is Market-To-Book. Positive coefficients for Cash Dividend Payment (51.8581) and Dividend Payout Ratio (0.2939) support the alignment hypothesis. Negative coefficient for Dividend Yield (-28.6159) may indicate caution. The first firm performance proxy measure is Return On Assets. Positive coefficient for Cash Dividend Payment (2.3368) and Dividend Yield (0.3871) supports alignment alignment of managerial interest with shareholders. Negative coefficient for Dividend Payout Ratio (-0.0393) provide mixed signals and hence caution needs to be applied in the interpretation. The second firm performance measure is Return On Equity. Positive coefficients for Cash Dividend Payment (3.3987) and Dividend

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

Yield (0.3683) support alignment alignment of managerial interest with shareholders. The negative coefficient for Dividend Payout Ratio (-0.0637) may suggest caution. The third firm performance measure is Return On Sales. Likewise ROA and ROE, similar pattern is reported. Cash Dividend Payment (3.7351) and Dividend Yield (0.477) support alignment alignment of managerial interests with those of the shareholders.

Table 8. : Effect of Dividend Policy on Tobin's Q (Chaebol Vs Non-Chaebols).

PANEL A (DEPENDENT VARIABLE: Tobin's Q) CHAEBOL FIRMS: N=1188				PANEL B (DEPENDENT VARIABLE: Tobin's Q) NON-CHAEBOL FIRMS: N=3103		
	1	2	3	1	2	3
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
CASH DIVIDEND PAYMENT	31.4857***			17.8617***		
	(17.1094)			(13.7650)		
DIVIDEND YIELD		-17.6897***			-12.0933***	
		(-14.4223)			(-15.2515)	
DIVIDEND PAYOUT RATIO			0.1873***			-0.0130
			(3.0760)			(-0.3553)
DEBT RATIO	-0.4395***	-0.7159***	-0.7621***	-0.6358***	-1.1336***	-0.9318***
	(-4.8880)	(-7.8902)	(-7.7741)	(-11.6473)	(-21.9064)	(-17.6073)
FREE CASH FLOW	0.8638***	2.8423***	2.3770***	0.5080***	1.4943***	1.1715***
	(3.1524)	(10.4781)	(8.1612)	(2.9208)	(8.9199)	(6.7797)
OWN.CONC.	0.0018	0.0005	0.0007	-0.0164***	-0.0122***	-0.0150***
	(1.2931)	(0.3713)	(0.4387)	(-10.9564)	(-8.1726)	(-9.7276)
LN. ASSET INTENSITY	0.0297	-0.0315**	-0.0120	-0.0233**	-0.0153	-0.0180
	(1.9898)	(-2.0586)	(-0.7284)	(-2.3079)	(-1.5253)	(-1.7197)
LN.EMPLOYEE INTENSITY	0.0786***	0.0243	0.0671***	0.1295***	0.1014***	0.1249***
	(4.3120)	(1.2797)	(3.3098)	(10.1831)	(7.9729)	(9.5315)
SIZE	0.0550***	0.0063	0.0446***	-0.0329***	-0.0020	-0.0171**
	(4.3994)	(0.4842)	(3.1913)	(-4.3539)	(-0.2640)	(-2.2081)
Constant	0.5057	1.5465***	0.9926**	4.6370***	3.6024***	4.3206***
	(1.1501)	(3.4259)	(2.0146)	(18.0984)	(13.9631)	(16.3777)
Firm Fixed (dummy variables)	No	No	No	No	No	No
Year Fixed (dummy variables)	No	No	No	No	No	No
R-squared	0.3001	0.2573	0.1334	0.2287	0.2387	0.181516
Adjusted R-squared	0.2959	0.2529	0.1282	0.2270	0.2370	0.1797
F-statistic	72.2705***	58.4142***	25.9461***	131.1020***	138.6298***	98.0546***
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

Table 9. Effect of Dividend Policy on Market-To-Book (Chaebol Vs Non-Chaebols).

PANEL A (DEPENDENT VARIABLE: Market-To-Book) CHAEBOL FIRMS: N=1188				PANEL B (DEPENDENT VARIABLE: Market-To-Book) NON-CHAEBOL FIRMS: N=3103		
	1	2	3	1	2	3
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
CASH DIVIDEND PAYMENT	51.8581***			27.6540***		
	(16.8372)			(11.9865)		
DIVIDEND YIELD		-28.6159***			-21.5589***	
		(-13.9104)			(-15.4114)	
DIVIDEND PAYOUT RATIO			0.2939***			-0.0575
			(2.8920)			(-0.8876)
DEBT RATIO	1.0684***	0.6122***	0.5380***	0.8567***	0.0377	0.3873***
	(7.0990)	(4.0230)	(3.2878)	(8.8276)	(0.4128)	(4.1461)
FREE CASH FLOW	1.3494***	4.5922***	3.8357***	0.8211***	2.4248***	1.8622***
	(2.9423)	(10.0935)	(7.8900)	(2.6551)	(8.2046)	(6.1045)
OWN.CONC.	0.0032	0.0010	0.0013	-0.0261***	-0.0189***	-0.0238***
	(1.3343)	(0.4252)	(0.4859)	(-9.7716)	(-7.1535)	(-8.7138)
LN. ASSET INTENSITY	0.0728***	-0.0272	0.0045	-0.0408**	-0.0277	-0.0314
	(2.9159)	(-1.0619)	(0.1628)	(-2.2724)	(-1.5636)	(-1.6965)
LN.EMPLOYEE INTENSITY	0.1424***	0.0543	0.1235***	0.2331***	0.1841***	0.2254***
	(4.6672)	(1.7026)	(3.6504)	(10.3105)	(8.2030)	(9.7457)
SIZE	0.0941***	0.0149	0.0766***	-0.0731***	-0.0216	-0.0479***
	(4.4960)	(0.6794)	(3.2819)	(-5.4419)	(-1.6375)	(-3.5083)
Constant	0.3420	2.0468***	1.1619	7.8318***	6.0598***	7.3199***
	(0.4648)	(2.7035)	(1.4128)	(17.1927)	(13.3136)	(15.7177)
Firm Fixed (dummy variables)	No	No	No	No	No	No
Year Fixed (dummy variables)	No	No	No	No	No	No
R-squared	0.2761	0.2287	0.1085	0.1251	0.1497	0.0847
Adjusted R-squared	0.2718	0.2241	0.1032	0.1231	0.1478	0.0826
F-statistic	64.2927***	49.9735***	20.5155***	63.2021***	77.8439***	40.9068***
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

Table 10. Effect of Dividend Policy of ROA (Chaebol Vs Non-Chaebol Firms).

PANEL A (DEPENDENT VARIABLE: ROA) CHAEBOL FIRMS: N=1188				PANEL B (DEPENDENT VARIABLE: ROA) NON-CHAEBOL FIRMS: N=3103		
	1	2	3	1	2	3
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
CASH DIVIDEND PAYMENT	2.3368***			2.0901***		
	(27.9421)			(18.5820)		
DIVIDEND YIELD		0.3871***			0.7532***	
		(5.6239)			(10.5094)	
DIVIDEND PAYOUT RATIO			-0.0393***			0.0151***
			(-13.1400)			(4.6678)

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

DEBT RATIO	-0.0148***	-0.0388***	-0.0359***	-0.0606***	-0.0820***	-0.0903***
	(-3.6190)	(-7.6148)	(-7.4438)	(-12.8036)	(-17.5231)	(-19.3019)
FREE CASH FLOW	0.1260***	0.2208***	0.2168***	0.3341***	0.3908***	0.4056***
	(10.1154)	(14.5059)	(15.1418)	(22.1591)	(25.8070)	(26.5467)
OWN.CONC.	-0.0001	-0.0002**	-0.0002**	0.0005***	0.0005***	0.0006***
	(-1.2502)	(-2.0878)	(-2.4724)	(4.0336)	(3.7366)	(4.6451)
LN. ASSET INTENSITY	-0.0036***	-0.0058***	-0.0054***	-0.0035***	-0.0032***	-0.0035***
	(-5.2390)	(-6.7441)	(-6.6237)	(-4.0453)	(-3.4928)	(-3.7531)
LN.EMPLOYEE INTENSITY	-0.0030***	-0.0028***	-0.0035***	-0.0041***	-0.0032***	-0.0044***
	(-3.5862)	(-2.6112)	(-3.5337)	(-3.7535)	(-2.7606)	(-3.8196)
SIZE	0.0011**	0.0007	-0.0011	0.0051***	0.0059***	0.0066***
	(1.8982)	(0.9100)	(-1.6038)	(7.7453)	(8.7734)	(9.6581)
Constant	-0.0739***	-0.0278	0.0276	-0.2103***	-0.2012***	-0.2375***
	(-3.6968)	(-1.0957)	(1.1398)	(-9.4677)	(-8.6270)	(-10.1815)
Firm Fixed (dummy variables)	No	No	No	No	No	No
Year Fixed (dummy variables)	No	No	No	No	No	No
R-squared	0.5769	0.3153	0.3867	0.4456	0.4050	0.3881
Adjusted R-squared	0.5744	0.3112	0.3831	0.4444	0.4037	0.3867
F-statistic	229.8492***	77.6276***	106.2848***	355.4167***	300.9735***	280.4196***
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

Table 11. Effect of Dividend Policy on ROE (Chaebol Vs Non-Chaebol Firms).

PANEL A (DEPENDENT VARIABLE: ROE) CHAEBOL FIRMS: N=1188				PANEL B (DEPENDENT VARIABLE: ROE) NON-CHAEBOL FIRMS: N=3103		
	1	2	3	1	2	3
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
CASH DIVIDEND PAYMENT	3.3987***			2.9698***		
	(20.4250)			(13.5486)		
DIVIDEND YIELD		0.3683***			1.26269***	
		(2.9511)			(9.2241)	
DIVIDEND PAYOUT RATIO			-0.0637***			0.0325***
			(-11.6903)			(5.2749)
DEBT RATIO	0.0814***	0.0469***	0.0510***	-0.0848***	-0.0848***	-0.1238***
	(10.0070)	(5.0779)	(5.8173)	(-9.1986)	(-9.1986)	(-13.9233)
FREE CASH FLOW	0.1899***	0.3339***	0.3195***	0.5426***	0.5426***	0.6401***
	(7.6659)	(12.0964)	(12.2574)	(18.4686)	(18.4686)	(22.0454)
OWN.CONC.	0.0000	-0.0002	-0.0002	0.0012***	0.0012***	0.0013***
	(-0.2082)	(-1.0696)	(-1.3569)	(4.5698)	(4.5698)	(4.9278)
LN. ASSET INTENSITY	-0.0024*	-0.0060***	-0.0049***	-0.0063***	-0.0063***	-0.0066***

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

	(-1.8082)	(-3.8276)	(-3.3395)	(-3.6909)	(-3.6909)	(-3.7325)
LN.EMPLOYEE INTENSITY	-0.0055***	-0.0057***	-0.0063***	-0.0059***	-0.0059***	-0.0061***
	(-3.3484)	(-2.9637)	(-3.4638)	(-2.7314)	(-2.7314)	(-2.7766)
SIZE	0.0006	-0.0003	-0.0027**	0.0078***	0.0078***	0.0098***
	(0.5741)	(-0.2385)	(-2.1541)	(6.1252)	(6.1252)	(7.5245)
Constant	-0.1475***	-0.0769	0.0080	-0.3300***	-0.3300***	-0.3621***
	(-3.7109)	(-1.6743)	(0.1820)	(-7.6252)	(-7.6252)	(-8.1702)
Firm Fixed (dummy variables)	No	No	No	No	No	No
Year Fixed (dummy variables)	No	No	No	No	No	No
R-squared	0.4253	0.2278	0.3029	0.3288	0.3288	0.2953
Adjusted R-squared	0.4219	0.2232	0.2987	0.3273	0.3273	0.2937
F-statistic	124.7523***	49.7359***	73.2349***	216.5724***	216.5724***	185.2820***
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

Table 12. Effect of Dividend Policy on ROS (Chaebol Vs Non-Chaebol Firms).

PANEL A (DEPENDENT VARIABLE: ROS) CHAEBOL FIRMS: N=1188				PANEL B (DEPENDENT VARIABLE: ROS) NON-CHAEBOL FIRMS: N=3103		
	1	2	3	1	2	3
VARIABLE	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
CASH DIVIDEND PAYMENT	3.7351***			5.5709***		
	(12.7399)			(17.3091)		
DIVIDEND YIELD		0.4770**			2.1047***	
		(2.3630)			(10.3257)	
DIVIDEND PAYOUT RATIO			-0.0805***			0.0904***
			(-8.9492)			(9.9214)
DEBT RATIO	-0.0355**	-0.0736***	-0.0683***	-0.0691***	-0.1244***	-0.1335***
	(-2.4803)	(-4.9280)	(-4.7151)	(-5.1005)	(-9.3513)	(-10.1639)
FREE CASH FLOW	0.1433***	0.2993***	0.2814***	0.6027***	0.7511***	0.7745***
	(3.2819)	(6.7035)	(6.5393)	(13.9698)	(17.4415)	(18.0559)
OWN.CONC.	0.0000	-0.0002	-0.0002	0.0002	0.0002	0.0004
	(-0.0930)	(-0.6911)	(-0.8897)	(0.6109)	(0.4042)	(0.9484)
LN. ASSET INTENSITY	0.1033***	0.0996***	0.1008***	0.0789***	0.0799***	0.0774***
	(43.4648)	(39.5484)	(41.3809)	(31.4885)	(30.9706)	(29.7843)
LN.EMPLOYEE INTENSITY	-0.0338***	-0.0338***	-0.0345***	-0.0399***	-0.0372***	-0.0399***
	(-11.6247)	(-10.8085)	(-11.5290)	(-12.6570)	(-11.3619)	(-12.2790)
SIZE	-0.0024	-0.0033	-0.0063***	0.0065***	0.0087***	0.0096***
	(-1.2006)	(-1.5443)	(-3.0723)	(3.4825)	(4.5256)	(5.0124)
Constant	-0.6238***	-0.5475***	-0.4399***	-1.0153***	-0.9853***	-1.0582***
	(-8.9048)	(-7.3696)	(-6.0418)	(-15.9772)	(-14.8558)	(-16.1593)
Firm Fixed (dummy variables)	No	No	No	No	No	No
Year Fixed (dummy variables)	No	No	No	No	No	No
R-squared	0.7642	0.7330	0.7488	0.4549	0.4220	0.4205
Adjusted R-squared	0.7628	0.7314	0.7473	0.4536	0.4207	0.4192

Preprints (www.preprints.org) | NOT PEER-REVIEWED | Posted: 12 January 2024 doi:10.20944/preprints202401.1015.v1

F-statistic	546.2895***	462.8251***	502.5037***	368.9300***	322.8205***	320.8646***
Prob(F-statistic)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

Table 13. Effect of Dividend Policy on Firm Performance and Value.

	CHAEBOL FIRMS: N=1188			NON-CHAEBOL FIRMS: N=3103		
VARIABLE	CASH DIVIDEND PAYMENT	DIVIDEND YIELD	DIVIDEND PAYOUT RATIO	CASH DIVIDEND PAYMENT	DIVIDEND YIELD	DIVIDEND PAYOUT RATIO
BETA(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)	Coeff.(t)
Tobin's Q	31.4857***	-17.6897***	0.1873***	17.8617***	-12.0933***	-0.013
	(17.1094)	(-14.4223)	(3.076)	(13.765)	(-15.2515)	(-0.3553)
Market-To-Book	51.8581***	-28.6159***	0.2939***	27.654***	-21.5589***	-0.0575
	(16.8372)	(-13.9104)	(2.892)	(11.9865)	(-15.4114)	(-0.8876)
Return On Assets	2.3368***	0.3871***	-0.0393***	2.0901***	0.7532***	0.0151***
	(27.9421)	(5.6239)	(-13.14)	(18.582)	(10.5094)	(4.6678)
Return On Equity	3.3987***	0.3683***	-0.0637***	2.9698***	1.2627***	0.0325***
	(20.425)	(2.9511)	(-11.6903)	(13.5486)	(9.2241)	(5.2749)
Return On Sales	3.7351***	0.477**	-0.0805***	5.5709***	2.1047***	0.0904***
	(12.7399)	(2.363)	(-8.9492)	(17.3091)	(10.3257)	(9.9214)

Note:Beta corresponds to the coefficient estimates. Numbers in parentheses are t-statistics, ***,** and * indicate statistical significance at 1%,5% and 10% level, respectively.

The negative coefficient for Dividend Payout Ratio (-0.0805) may suggest caution. Under the non-Chaebol firms, firm value proxy, Tobin's Q is also reported. Negative coefficients for Dividend Yield (-12.0933), significant at 1% and Dividend Payout Ratio (-0.013) albeit insignificant, suggest potential negative associations, indicating caution should be applied in the interpretation. However, the positive coefficient for Cash Dividend Payment(17.8617) supports alignment of managerial interest with shareholders. Considering the alternative firm value proxy measure, Market-To-Book, the pattern observed in the case of Tobin's Q is evidently repeated. The negative coefficients for Dividend Yield(-21.5589), significant at 1% level and Dividend Payout Ratio (-0.0575) with no statistical significance suggest potential negative associations, indicating caution needs to be applied before assuming entrenchment hypothesis or any other dynamic association is responsible for the negative effects. However, positive coefficient for Cash Dividend Payment (27.654) supports alignment of managerial interest with that of shareholders. Under the firm performance proxies Return On Assets, (ROA) with positive coefficients for all proxies (2.0901, 0.7532, 0.0151) support alignment hypothesis. Similar observation in the case of Return On Equity,(ROE) with positive coefficients for all proxies (2.9698, 1.2627, 0.0325) support alignment of managers interests with those of the shareholders. Return On Sales, (ROS) equally exhibits consistent positive coefficients for all proxies (5.5709, 2.1047, 0.0904) supporting alignment hypothesis.

6. Conclusions

 doi:10.20944/preprints202401.1015.v1

The integrated analyses above suggest that for both Chaebol and non-Chaebol firms, the results are mixed, with some proxies supporting the alignment hypothesis and others suggesting caution, possibly aligning with the entrenchment hypothesis. This study applied caution in interpreting negative coefficients because, traditionally, positive associations between dividend policy and firm performance and value are more aligned with the typical expectations based on signaling theory. Negative associations may deviate from conventional expectations and could suggest different dynamics or potential entrenchment issues. Therefore, caution is advised to thoroughly understand the underlying reasons for these negative associations and consider them within the broader context of corporate governance and ownership structures, especially in the Korean market.

In conclusion, this study empirically revisits the effect of dividend Policy on Firm Performance and Value using data from Korean Market. It explored the subtle dynamics of dividend policy, firm performance, and value within the Korean corporate environment, addressing the distinctive challenges posed by agency problems, particularly Type I and Type II, which are prevalent in the Korean setting. The alignment and entrenchment theories are examined through a comprehensive analysis, considering the unique characteristics of Chaebol conglomerates and non-Chaebol firms. The findings reveal a complex link between dividend policy and firm outcomes. Notably, the significant effect of dividend policy varies across different measures and is influenced by ownership structures, particularly in Chaebol enterprises. The observed mixed results highlight the necessity of taking into account a variety of factors, such as ownership concentration, when analyzing the effects of dividend policy on company value and performance.

This study makes a substantial contribution to the literature by methodically studying the Korean market and providing insights on alignment and entrenchment theories within the setting of ownership arrangements specific to Korea, particularly the Chaebols. The diverse outcomes warn against a blanket interpretation, underlining the importance of an in-depth comprehension of the relationship between dividend policy and business outcomes.

For practitioners, the study emphasizes the importance of carefully evaluating dividend policy decisions, particularly in Chaebol businesses where strong owners have significant power. Shareholders are cautioned to be wary of potential dividend policy entrenchment concerns, highlighting the necessity of transparency and communication.

In the academic community, this study adds to our understanding of corporate finance dynamics in the Korean market, providing vital insights for future scholarly debate. The appeal for improved transparency and communication in dividend policy serves as a policy recommendation, aligning with broader corporate governance norms to enhance transparency, accountability, and value creation in the Korean market.

7. Limitations of Study

(i) Generalizability: The findings are exclusive to the Korean market and may not be directly applicable to other contexts due to the distinctive characteristics of Chaebol conglomerates and the prevailing ownership arrangements in Korea

(ii) Data Restrictions: The study relies on publicly available data, and their quality and completeness may have an impact on the robustness of the findings. Furthermore, the study period's temporal constraints may not capture long-term effects outside the period.

(iii) Dynamics of Ownership Structures: The study assumes that ownership structures are stable, however changes over time are not fully explored. Dynamic shifts in ownership could have implications for the observed relationships.

(iv) Market Dynamics: The study focuses on a given time period, and market conditions may change over time. External economic forces and adjustments to regulations are not fully considered.

(v) Dividend Policy Proxies: While the study includes several dividend policy substitutes, these may not capture all dimensions of dividend policy, potentially overlooking peculiarities in managerial decision-making. Future research should conduct cross-cultural analysis and explore dividend policy effects across diverse global markets to assess cross-cultural variations. Additionally, longitudinal data is encouraged in order to extend study periods to capture evolving market dynamics and long-term effects. Furthermore, investigation of agency

 doi:10.20944/preprints202401.1015.v1

dynamics that delves deeper into the intricacies of Type I and Type II agency problems is suggested as well as the exploration of individual firm characteristics within Chaebol and non-Chaebol categories for more insights. Finally, investigation of the influence of regulatory changes on the relationship between dividend policy and firm outcomes is suggested.

Appendix A

Multicollinearity Test		
Variable	Coefficient Variance	Centered VIF
DIVIDEND POLICY	**3.28E-06**	**2.299288**
CASH DIVIDEND PAYMENT	**0.011946**	**2.633934**
DIVIDEND YIELD	**0.004906**	**2.446057**
DIVIDEND PAYOUT RATIO	**8.03E-06**	**1.787331**
OWN. CONC.	**2.02E-09**	**1.418097**
DEBT RATIO	**1.23E-05**	**1.586581**
FREE CASH FLOW	**0.000114**	**1.258367**
SIZE	**2.33E-07**	**1.604303**
ASSET_INTENSITY	**5.67E-07**	**1.491007**
EMPLOYEE _INTENSITY	**6.34E-07**	**1.192572**
DUMMYCHAEBOL	**3.27E-06**	**1.758633**

Note: VIF = Variance Inflation Factors, Own. Con.= Ownership Concentration ; included observations= 5,478

References

1. Bhattacharya, S. (1979). Imperfect information, dividend policy, and "The bird in the hand" Fallacy. Source: The Bell Journal of Economics, 10 (1) , 259–270. https:// doi.org/10.2307/3003330
2. John K. and Williams J., (1985) "Dividend, Dilution and Taxes: A signaling Equilibrium" The journal of Finance, 40, 1053-1070. https://doi.org/10.2307/2328394
3. Miller M. and Rock K. (1985) "Dividend Policy under Asymmetric Information" The Journal of Finance, 40, 1118-1141. https://doi.org/10.2307/2328393
4. Jensen M. and Meckling W., (1976) "Theory of the firm: managerial behavior, agency costs and ownership structure" The Journal of Financial Economics, 3, 305-360. https://doi.org/10.2139/ssrn.94043
5. Wang, D. (2006), "Founding family ownership and earnings quality", Journal of Accounting Research, Vol. 44 No. 3, pp. 619-656. 5(b). Faulkender, M., & Wang, R. (2006). Corporate Financial Policy and the Value of Cash. The Journal of Finance, 61(4), 1957–1990. http://www.jstor.org/stable/3874732
6. Stulz, R. M. (1990). Managerial discretion and optimal financing policies. Journal of Financial Economics, 26(1), 3-27. https://doi.org/10.1016/0304-405X(90)90011-N.
7. Jensen, M.C. (1986), "Agency cost of free cash flow, corporate finance, and takeovers", Corporate Finance, and Takeovers: American Economic Review, Vol. 76 No. 2, pp. 323-329.
8. Shleifer, Andrei and Robert W. Vishny. 1986. Large shareholders and corporate control. Journal of Political Economy 94(3): 461-488. https://doi.org/10.1086/261385. 8(b). La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Agency Problems and Dividend Policies Around the World. The Journal of Finance, 55(1), 1-33. https://doi.org/10.1111/0022-1082.00199
9. Burns N, McTier B C, & Minnick K. (2015). Equity-incentive compensation and payout policy in Europe. Journal of Corporate Finance, 30, 85–97. https://doi.org/10.1016/j.jcorpfin.2014.10.019
10. Jo, H., & Pan, C. (2009). Why are firms with entrenched managers more likely to pay dividends? Review of Accounting and Finance, 8(1), 87–116. https://doi.org/10.1108/14757700910934256
11. Gugler, K. (2003). Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment. Journal of Banking & Finance, 27(7), 1297-1321. https://doi.org/10.1016/S0378-4266(02)00258-3.
12. Faccio, M., Lang, L. H., & Young, L. (2001). Dividends and expropriation. American Economic Review, 91(1), 54–78. https://doi.org/10.1257/aer.91.1.54

13. Miller, M. E., & Kevin, R. O. (1985). Dividend policy under asymmetric information. The Journal of Finance, 40(4), 1031–1051. https://doi.org/10.1111/j.1540-6261.1985.tb02362.x
14. Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. The Journal of Business, 34(4), 411–433. https://doi.org/10.1086/294442
15. Chen, Z., Cheung, Y.-L., Stouraitis, A., & Wong, A. W. S. (2005). Ownership concentration, firm performance, and dividend policy in Hong Kong. Pacific-Basin Finance Journal, 13(4), 431-449. https://doi.org/10.1016/j.pacfin.2004.12.001.
16. Joh, S.W., 2003. Corporate governance and firm profitability: evidence from Korea before the economic crisis. J. Financ. Econ. 68 (2), 287–322.
17. Paligorova, T. (2010). Corporate Risk Taking and Ownership Structure. Bank of Canada Working Paper, 2010(3).
18. Lee, Y. K. (2022). The effect of ownership structure on corporate payout policy and performance: Evidence from Korea's exogenous dividends tax shock. Pacific-Basin Finance Journal, 73, 101763. https://doi.org/10.1016/j.pacfin.2022.101763
19. Nissim D. and Ziv A., (2001) "Dividend Changes and Future Profitability" The Journal of Finance, 56, 2111-2133. https://doi.org/10.1111/0022-1082.00400
20. Amidu, M. (2007). How does dividend policy affect firm performance? A Ghanaian Case. Investment Management and Financial Innovations, 4, 103–112. Retrieved from https://www.researchgate.net/publication/286355892
21. Nguyen, A. H., Pham, C. D., Doan, N. T., Ta, T. T., Nguyen, H. T., & Truong, T. V. (2021). The Effect of Dividend Payment on Firm's Financial Performance: An Empirical Study of Vietnam. Journal of Risk and Financial Management, 14(8), 353. https://doi.org/10.3390/jrfm14080353
22. Benartzi, S., Michaely, R., & Thaler, R. (1997). Do Changes in Dividends Signal the Future or the Past? The Journal of Finance, 52(3), 1007–1034. https://doi.org/10.2307/2329514
23. Fama, E. F., & French, K. R. (2001). Disappearing dividends: Changing firm characteristics or lower propensity to pay? Journal of Financial Economics, 60(1), 3–43. https://doi.org/10.1016/S0304-405X(01)00038-1
24. Amihud Y. and Murgia M., (1997) "Dividends, Taxes and Signaling Evidence from Germany" The Journal of Finance, 52, 397-408. https://doi.org/10.1111/j.1540-6261.1997.tb03822.x
25. Khan, B., Zhao, Q., Iqbal, A., Ullah, I., & Aziz, S. (2022). Internal Dynamics of Dividend Policy in East-Asia: A Comparative Study of Japan and South Korea. SAGE Open, 12(2). https://doi.org/10.1177/21582440221095499
26. Nam, S.H. (1991). Empirical Study of Signaling Effect of Dividend. Korean Journal of Financial Management, 8(43–67). doi:10.37197/ARFR.2022.35.3.4.
27. Park, Y.K. (2004). Does Dividend Change Predict Corporate Future Earnings? Korean Journal of Financial Studies, 33(63–94). Retrieved from https://www.e-kjfs.org/m/journal/view.php?number=410
28. Kim, S., & Jang, Y. (2016). The Cash-Flow Permanence and the Choice between Dividends and Stock Repurchases. Journal of Derivatives and Quantitative Studies, 24(591–617). doi:10.1108/JDQS-04-2016-B0003.
29. Kim, S.; Lee, E.J. Payout Policy in Korea II: A Review of Empirical Evidence. Asian Review of Financial 667 Research 2022, 35, 145–216. doi:10.37197/ARFR.2022.35.3.4.
30. Jung, S.C., & Chun, S.E. (2017). Bank Dividends Policy and Ownership Structure in Korea. Korean Journal of Financial Management, 34, 85–110. DOI: 10.22510/kjofm.2017.34.4.004
31. Rozeff, M. S. (1982). Growth, beta, and agency costs as determinants of dividend payout ratios. Journal of Financial Research, 5(3), 249–259. https://doi.org/10.1111/j.1475-6803.1982.tb00299.x
32. Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. American Economic Review, 74(4), 650–659. https://www.jstor.org/stable/1805130
33. Jiraporn, P., Kim, J.-C., & Kim, Y. S. (2011). Dividend Payouts and Corporate Governance Quality: An Empirical Investigation. The Financial Review, 46(2), 251-279. https://doi.org/10.1111/j.1540-6288.2011.00291.x
34. McConnell, J. J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value. Journal of Financial Economics, 27(2), 595-612. https://doi.org/10.1016/0304-405X(90)90069-C
35. Li, W., Zhou, J., Yan, Z., & Zhang, H. (2020). Controlling shareholder share pledging and firm cash dividends. Emerging Markets Review, 42, 100671. https://doi.org/10.1016/j.ememar.2019.100671
36. Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings and taxes. The American Economic Review, 46(2), 97–113. http://www.jstor.org/stable/1910664
37. Mitton, T. (2004). Corporate governance and dividend policy in emerging markets. Emerging Markets Review, 5(4), 409–426. https://doi.org/10.1016/j.ememar.2004.05.003
38. Martins, T. Cotrim, & Novaes, W. (2012). Mandatory dividend rules: Do they make it harder for firms to invest? Journal of Corporate Finance, 18(4), 953–967. https://doi.org/10.1016/j.jcorpfin.2012.05.002

39. Hu, A., & Kumar, P. (2004). Managerial Entrenchment and Payout Policy. The Journal of Financial and Quantitative Analysis, 39(4), 759–790. https://doi.org/10.2307/30031884
40. Isakov, D., & Weisskopf, J. (2015). Pay-out policies in founding family firms. Journal of Corporate Finance, 33, 330–344. https://doi.org/10.1016/j.jcorpfin.2015.01.003
41. Yu, X., Wang, Y., Chen, Y., & Wang, G. (2021). Dividend payouts and catering to demands: Evidence from a dividend tax reform. International Review of Financial Analysis, 77, 101841. doi:10.1016/j.irfa.2021.101841.
42. Atanassov, J., & Mandell, A. J. (2018). Corporate governance and dividend policy: Evidence of tunneling from master limited partnerships. Journal of Corporate Finance, 53,106-132. https://doi.org/10.1016/j.jcorpfin.2018.10.004
43. Fama, E. F., & French, K. R. (1992). The Cross-Section of Expected Stock Returns. The Journal of Finance, 47, 427-465. https://doi.org/10.1111/j.1540-6261.1992.tb04398.x
44. BHSN. (2020). Criteria for Determining Chaebols in Korea. Retrieved from https://bhsn.co.kr/en/standard-of-judgement-of-korean-chaebols/
45. 기업집단포털 (egroup.go.kr)(Accessed: December 2023).