

# Family Ownership and Dividend Policy: Evidence from India

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## Abstract

The article examines the ownership structure and dividend payout behavior of India-listed firms using a panel regression approach. It focuses on family ownership and examines why dividend payouts of family firms differ from non-family firms. The study finds that family firms dominate and have concentrated ownership using data from the NSE-listed regular dividend-paying firms. Although family ownership concentration is high among Indian firms, these firms are not concerned about distributing cash as dividends. Instead, these firms focus on retaining and passing on control from one generation to the next. The evidence shows that family firms pay low dividends and have higher leverage than non-family counterparts. The results support the entrenchment of minority shareholders and the proposition that a high payout signals a reduction in the information asymmetry and level of risk. The study further illustrates that cash dividends tend to reduce the level of risk perceived; however, (cash dividend) leads to the deterioration firm's liquidity and aid in the shrinking of cash among emerging market firms. The originality of the paper lies in factoring ownership concentration while explaining the dividend behaviour from an emerging markets perspective, characterized by high private benefits and weak protection for external minority shareholders.

**Keywords:** Dividend Policy, Family Firms, Ownership Structure, Emerging Market

**JEL Classification Code:** G15, G32, G35

## 1. Introduction

Dividend policy has practical implications in defining policy decisions for managers, investors, creditors, and other stakeholders. High dividend payments can restrict managers' flexibility to invest in projects and reduce firms' ability to service lenders' claims. For investors, dividend distributions serve income needs and affect firm valuation (Bernstein, 1998). Not surprisingly, researchers have set forth several

theories to explain why companies pay dividends and identify factors influencing dividend payouts.

The dividend theory has been evolving with the changing business practices, corporate restructuring, and financing deepening. The organization structure has been changing over the years, and family owners prefer to dilute their equity stake to take advantage of the market orientation by changing the financing pattern. Although most studies focus on developed markets, this study examines India's dividend behavior within an emerging market. Unlike advanced markets such as the United States and the United Kingdom, emerging economy firms have concentrated ownership. Family-owned firms dominate India, Korea, and South American countries (Faccio & Lang, 2002).

India recently witnessed equity culture as an emerging market economy with participation from large-scale retail and non-promoter institutional investors. Indian firms' ownership structure has undergone substantial diversification with the dilution of equity and changing shareholding patterns with time. Domestic and foreign institutional ownerships have become more diffused with the decline of family ownership and the emergence of high-net-worth individuals. Retail and mutual fund investors have considered equity investment a

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source of income, and dividends serve as a source of income for family members.

The changing perception of investors, family owners, and the financial deepening of the equity market motivates us to reanalyze family ownership's impact on the payout policy decisions. Thus, a need exists for an in-depth study of ownership structure and its association with dividend payout in an emerging market. The study focuses on how the dividend policy is affected by the concentration of ownership with few family members. The study differentiates factors influencing family firms' corporate dividend policy from non-family in emerging markets like India.

The article examines recent dynamics involving why Indian firms pay dividends. Specifically, it addresses two major research questions. First, how does family ownership concentration influence payout decisions? Second, what are the prime determinants of dividend payout of Indian firms? Understanding the ownership structures helps explain India's dividend policy decisions where most firms exhibit a family firm's behavior. The study focuses on regular dividend-paying firms only. Non-inclusion of firms with irregular dividend payments helps better understand the corporate dividend policy and various factors influencing it. The consistency in dividend payments helps understand how firm-specific factors play a pivotal role in payout decisions. The findings show that family firms pay fewer dividends. The results suggest that family ownership concentration tends to lower dividend payout, suggesting rent extraction from the minority external shareholders (external). The study also shows that information asymmetry and other risks are high among the family firms, negatively influencing the dividend payout.

The remainder of the paper is organized as follows. Section 2 discusses the important literature. Section 3 outlines the testable hypotheses. Section 4 highlights the data characteristics and empirical design used in the study. Section 5 discusses the pragmatic outcomes and section 6 concludes with findings and implications for policymakers.

## 2. Literature Review

The classical dividend literature is apprehensive about dividend stability and firm valuation (Gordon, 1962; Lintner, 1956; Walter, 1956). Lintner specifies that managers slowly adjust payout to the target payout only when they see a sustained earnings increase. Walter stipulates that the cost of capital and internal rate of return maximize shareholders' wealth. According to Gordon, the present value of all expected dividends represents the firm's valuation. However, these conventional dividend theories have been criticized for paying no attention to external borrowings for investment needs.

Miller and Modigliani (1961) offer a linkage of dividend policy with capital markets. MM documents that a firm pays dividends and concurrently times the equity issue to undertake an optimal investment policy, thus making the dividend irrelevant. However, subsequent studies contradict MM's propositions. Researchers (Jensen, 1986; Thanatawee, 2011) propose several explanations for payout policy, including agency, free cash flow, capital structure, uncertainty, and maturity theories, among others.

### 2.1. Ownership Structure

Ownership structure influences a firm's policy and business decisions. Owners experience a loss of control and may not exercise real power to supervise managers' performance when the ownership structure is highly diffused. The relationship between ownership concentration and management control is complex and varies drastically with ownership diffusion. Ownership concentration among emerging market firms differs from that of developed market firms. Although ownership concentration differs across firms, evidence shows that most firms in emerging markets are family-controlled and have concentrated ownership (Gomez-Mejia et al., 2001). These firms experience diminishing ownership concentration with economic development (Claessens et al., 2000).

The permanency and achievement of noticeable family firms encouraged a widespread opinion about family firms embracing a long-term approach to managing firms (Bertrand & Schoar, 2006). These firms are apprehensive about control transfer to the next generation. Most are family-controlled firms from East Asian countries (Claessens et al., 2000). The information asymmetry is lower in family firms as ownership and management control remain within the family (Madyan et al., 2021). However, family firms are reluctant to remove incompetent family members from managerial roles and may create constraints for outside members to join the board, thus promoting nepotism and managerial entrenchment (Anderson & Reeb, 2003).

#### 2.1.1. Agency Theory

The agency theory defines ownership structure's interaction with various policy decisions, including dividend policy, investment, and financing decisions. The separation of management from ownership control reduces corporate managers' incentives to maximize shareholders' wealth (Belen Villalonga & Amit, 2006). According to this theory, the non-alignment of interests between owners and managers is high among widely dispersed firms. Investors prefer higher dividends, while management favours higher retained earnings to ensure the availability of funds for further

investments (Kanakriyah, 2020). High payouts decrease the free cash flow available to managers for investment (M. C. Jensen, 1986), thus limiting the agency problems between owners and managers (Rozeff, 1982).

The entrenchment theory depicts the rent extraction behaviour of majority shareholders from minority shareholders. This theory underlines the agency problem between family members (insiders) and external shareholders (Ho & Kang, 2013). Family firms are less motivated to smooth payouts with a rise in earnings (Gugler, 2003). Family ownership has a lower propensity to pay cash dividends (Wei et al., 2011). Ramli (2010) examined the association between ownership concentration and dividend payout for Malaysian firms and found support for agency theory. However, Andres (2008) documented that family firms have large and undiversified stakes, which enhance the probability of financial distress. The agency problems have been further discussed in the forms of higher institutional ownership (Abdelsalam et al., 2008), strong external auditing (Griffin et al., 2010), and monitoring by creditors (Jensen, 1986).

## 2.2. Dividend Policy in Emerging Markets

The dividend policy of emerging market firms differs from that of developed markets. Glen et al. (1995) find that emerging market firms follow less stable dividend policies and pay lower dividends than developed market firms. Adaoglu (2000) confirmed that Turkish firms follow unstable cash dividend policies. Abor and Bokpin (2010), in a study of thirty-four emerging markets, observe that investment opportunity and dividend payouts are negatively related. Forti et al. (2015) discern that firm size and profitability positively correlate with dividend payouts of Brazilian companies. Abdelsalam et al. (2008) report dividend payout positively relates to firm performance and institutional ownership for Egyptian firms.

Among the studies on Indian firms, Mohanty (1999) observed that Indian firms prefer constant dividends per share to constant payout ratios. Bhat and Pandey (1994) suggest that the target dividend rate and change in dividend rate follow a shift in long-term sustainable earnings (supports the Lintner model). Alternatively, Raghunathan and Das (1999) echoed a stable dividend policy (thirty percent of net profits) for India's top hundred firms between 1990 and 1999. However, Ranajee et al. (2018) examined the stickiness of dividend payouts and documented that payouts level increases with time, and business group association positively impacts the dividend payout. Kevin (1992) documents that profitability is important in defining the dividend policy of Indian firms. In contrast, Mahapatra and Sahu (1993) reported that free cash flow, current earnings, and past dividends are prime determinants of dividend payouts. Singhania and Gupta (2012) suggested that size, growth, and

investment opportunity are prime determinants of corporate dividend policy. Manos et al. (2012) supported the maturity hypothesis, whereas Baker and Kapoor's (2015) survey observations support signalling and life cycle hypotheses with little support for the agency theory. Das (2017) studied the BSE-500 (top 500 Bombay stock exchange listed) firms from 2001 to 2015. The analyses reveal that profitability and liquidity are influential in the payout decision. It further documents that leverage is significant, but the size is not, and the speed of adjustment is very high among Indian firms. Kumar (2006) documents that earnings positively impact dividend payouts and are negatively associated with leverage. Gupta and Banga (2010) found that ownership structure, leverage, profitability, and firm liquidity are major factors influencing the dividend policy of Indian firms. In contrast, Roy (2015) observed no relation between the leverage and dividend payout among India's 51 firms from FY08 to FY12.

## 3. Hypotheses Development

Although past research provides insights about dividends and dividend policy in emerging markets, several areas require further investigation. One such area is the fragmentation of ownership structure and its impact on dividend policy. Another concern is the agency problems related to conflicts between family owners and external minority investors. This study develops several testable hypotheses to examine factors influencing dividend payout and the impact of ownership structure and firm-specific factors on payout decisions.

### 3.1. The Entrenchment Hypothesis

As discussed in the literature review section, owner-manager conflicts result from the non-alignment of interest (Jensen & Meckling, 1976). For family firms, ownership and management control remain within the family (Madyan et al., 2021); these firms have low owner-manager agency problems. However, firms with concentrated ownership show the presence of the entrenchment effect (Kumar, 2006).

*H1: Family firms pay low dividends compared to non-family firms.*

*H2: Family ownership is negatively associated with dividend payouts.*

### 3.2. The Free-Cash-Flow Hypothesis

One explanation of why companies distribute dividends emanates from the free-cash-flow hypothesis (Jensen, 1986). The hypothesis suggests payouts are the ways of mitigating

agency problems associated with excess free cash flows. Kadioglu and Yilmaz (2017) and Dewasiri et al. (2019) examine the free-cash-flow hypothesis for Turkish and Sri Lankan firms, respectively. They observe strong support for the Jensen hypothesis of free cash flow.

On the one hand, high payouts shrink the free cash available and control over investment (Richardson, 2006). On the other hand, higher retention makes retained earnings (cheaper capital) available for new investments. Firms that decrease dividends experience a significant increase in earnings growth (Benartzi et al., 1997). High retentions (and investments) enhance the dividend payout in the future. The higher equity mix (i.e. ratio of retained earnings-to-equity capital) is associated with higher future dividend payments (DeAngelo et al., 2006; Denis & Osobov, 2008).

Based on the above discussion, we propose that free cash flow positively influences the dividend payouts and that the investment opportunity set negatively affects the dividend payouts.

*H3: Free cash flow is positively associated with dividend payouts.*

*H4: Firms with high investment opportunities have lower dividend payouts.*

### 3.3. The Capital Structure Hypothesis

Jensen and Meckling (1976) documented that financial leverage may substitute dividends in mitigating agency problems. It opines that the leverage brings in market monitoring (by creditors) and reduces the free cash (interest obligations). Additionally, Manos et al. (2012) document that information asymmetry increases external borrowing costs, and companies prefer to retain cash to meet investment obligations. Based on the high external borrowing costs, Al-Malkawi (2007) suggested that firms with high debt ratios tend to pay fewer dividends. Yusof and Ismail (2016) detected debt as a negative determinant of corporate dividend policy in Malaysia.

Based on the above discussion, we propose financial constraints negatively related to dividends.

*H5: Financial leverage is negatively associated with dividend payouts.*

### 3.4. The Uncertainty Hypothesis

Gordon (1959) proposed that a rational investor is risk-averse and prefers dividends to uncertain capital gains (bird-in-the-hand argument). Baker et al. (2001) documented stability in earnings as one of the prominent dividend payout factors. According to Grullon et al. (2002), firms paying high

dividends experience a substantial drop in systematic risk and vice versa. Uncertainty in cash flow adversely affects payouts (Chay & Suh, 2009).

Based on the above discussions, we propose that firms with cash flow uncertainty and higher earnings volatility have lower dividend payouts.

*H6: Earnings volatility and systematic risk are negatively associated with dividend payouts.*

### 3.5. The Maturity Hypothesis

As firms grow, their profitability tends to increase, but their investment opportunities generally decline, leading to a higher cash position. Therefore, firm size and age will likely affect a firm's dividend payout. The maturity hypothesis predicts a positive relation between firm size and age relative to dividend payouts (DeAngelo et al., 2006). Thanatawee (2011) supported the maturity hypothesis, which asserts a positive relation between firm size and dividend payout for Thai firms.

*H7: Firm size and firm age are positively associated with dividend payouts.*

## 4. Data and Empirical Design

This section briefly discusses the data selection procedures and empirical design used to examine the factors influencing dividend payouts, focusing on ownership structure.

### 4.1. Sample and Data Characteristics

The study examines the annual dividend payouts of firms listed on the National Stock Exchange (NSE) of India from 2006 to 2017. The study uses data from the Centre for Monitoring Indian Economy (CMIE) from five dominant industry sectors per the CMIE industry classification (Appendix A1). A detailed breakup of promoters' holdings is available from FY2006-07. The balanced panel is constructed that includes only non-financial and non-government-owned firms. State-controlled firms are excluded as their policy decisions are affected mainly by the government's financing constraints, social obligations, and lack of market orientation (Labhane & Mahakud, 2016). The sample also excludes firms with no dividend payments for three or more consecutive years; including non-dividend paying firms would distort the analysis. The final sample consists of a balanced panel of 369 firms.

The study constructs two distinct broad groups, family firms and non-family firms. For the study, apart from founding families, "family" comprises individuals and families (Villalonga & Amit, 2006, 2010). The definition is



consistent with the studies that typically establish minimum control thresholds such as 5%, 10%, or 20% (Claessens et al., 2000; Faccio & Lang, 2000; La Porta et al., 1999).

Accordingly, the study defines a family firm (FAMILY) wherein the family block holder has at least five percent direct equity ownership, and non-family firms represent the remainder. Family firms where family ownership concentration is at least twenty percent of the equity are categorized as family-controlled firms (FAMCON) (Kusnadi, 2011). FAMILY comprises 222 firms (60%); among them, 149 (67%) belong to FAMCON.

## 4.2. Empirical Design

This section discusses the methodology and econometric model used to examine the factors affecting the dividend payout of sample firms from India. The study uses dividend payout (DIV), measured by dividend-to-profits before interest and taxes. Using operating profit instead of profit after tax helps address inflated and negative payout ratios because of low and negative net income. It employs a panel regression approach to analyze the dividend policy.

Dividend policy differs by sector. Construction and manufacturing firms generally have high investments in tangible assets, whereas service sector firms have a higher portion of intangible assets and higher employee costs. Tangible assets are less risky and act as collateral for debt borrowing (Scott, 1977). However, earnings of service firms flow mainly from riskier intangible assets. Further, technological innovations may enhance firms' profitability over the period, thus positively contributing to dividend payouts. The model uses the sector as an absorbing parameter to control sectoral differences and includes time dummies to account for technological innovations.

Ownership structure affects dividend payout through an agency cost framework. To examine the role of family, the study employs ownership dummies (OWNTYPE) for family firms (FAMILY) and family-controlled firms (FAMCON). The model also includes Institutional ownership concentration (INS) to capture the role of institutional investors. The model includes return on profit (ROA) and market-to-book ratio (MTB) to capture firm performance. ROA denotes profitability, and MTB captures its market value and future growth potential.

Family firms seem to offer a good solution to owner-manager agency problems as the family has a significant ownership stake, emotional ties to business, and involvement in managerial roles. However, a weak governance structure may lead to various issues, including majority versus minority shareholders, managers versus creditors, managers versus suppliers, etc. The study includes debt-to-equity ratio (DE), as the financial leverage also brings in market monitoring (external governance) and reduces information

asymmetry. The ratio of free cash flow to the firm and total assets (FCFF) and retained earnings to total assets (RETA) capture a firm's yearly free cash and cumulative retained earnings, respectively. The FCFF helps in monitoring relations with the suppliers.

Operating risk (OPRISK) measures the volatility in operating income. The current ratio (CR) measures a firm's liquidity and indirectly improves the family firm's governance level. Since owners are managers in family firms, OPRISK (and FCFF) relates to salary, wages, and other expenses. The current ratio, measured by the current debt-to-current asset ratio (Pattiruhu & Paais, 2020), shows how a firm would meet financial obligations in the short term. Further, BETA does the role of market monitoring representing a firm's systematic risk concerning the market. Firms with high business risk favour low dividends, and liquid assets help the firm meet financial obligations, and these firms may maintain high dividend payouts. CAPEX and R&D capture a firm's growth potential (investment opportunity). Firm size (SIZE) and age (AGE) are included to capture firms' maturity. Table 1 presents the definition of the variables used in the study.

## 4.3. Panel Data Analysis Method

Descriptive statistics, correlation analysis, and panel data analysis econometric techniques are employed to analyze the data. The descriptive statistics and correlation analysis provide the initial characterization and describe the nature of the data, and the panel data analysis is specifically used for the main analysis.

The panel data analysis considers the cross-sectional and time-series attributes of the sampled data denoted by  $N \times T$ . Where  $N$  denotes the number of cases,  $T$  specifies the number of periods. Although for micro panels ( $N > T$ ), according to Baltagi and Baltagi (2008), these are not much of a problem with datasets having a large number of cases and a few years. The sample comprises 369 firms ( $N$ ) for 11 years ( $T$ ).

The study employs unit root tests to examine data stationarity. And for multi-collinearity, an ordinary correlation matrix analysis is conducted for the key variables used in the study. We conducted Wald and Breusch-Pagan test to select between pooled and panel regression. Additionally, the Hausman test selects the fixed-effects model (FEM) and random-effects model (REM). The FE model (robust) is employed to address the modified Wald test's Groupwise heteroskedasticity concern. Additionally, various model specification tests were conducted for autocorrelation, cross-sectional dependence, and heteroskedasticity. The Wooldridge and Pesaran cross-dependence tests confirm no autocorrelation and cross-sectional dependence, respectively.

Model D1 is estimated using a panel data regression framework to examine factors affecting dividend payouts for sample firms at the aggregate level:

**Table 1:** Variables Definition

Functional Notation(s)	Variables	Definition	References
DIV	Dividend payout	Dividend-to-EBIT ratio	(Cleary, 2006)
FAM	Family ownership	Aggregate equity owned by a family and affiliated families	(Andres, 2008)
INS	Institutional ownership	Percentage equity owned by unaffiliated institutions	(Mulyani et al., 2016)
ROA	Profitability	Return-on-assets	(Madyan et al., 2021)
MTB	Firm value	Market-to-book value ratio	(Denis & Osobov, 2008)
FCFF	Free cash flows-to-firm	Free cash flows-to-TA ratio	(M. C. Jensen, 1986)
CAPEX	Capital expenditure	Capex to the firm's total assets ratio	(Abor & Bokpin, 2010)
R&D	Investment	R&D expenses to the firm's TA ratio	(G. R. Jensen et al., 1992)
RETA	Retained earnings	The ratio of retained earnings-to-TA	(DeAngelo et al., 2006)
DE	Leverage	Debt-equity ratio	(Pattiruhu & Paais, 2020)
OPRISK	Operating risk	The ratio of SD (1 <sup>st</sup> difference of operating income) to TA	(G. R. Jensen et al., 1992)
BETA	Market risk	Stock beta	(Rozeff, 1982)
CR	Firm liquidity	Current ratio	(Pattiruhu & Paais, 2020)
SIZE	Firm size	Natural logarithm of a firm's TA	(Madyan et al., 2021)
AGE	Firm age	Natural logarithm of a firm's age	(Fairchild et al., 2014)

$$\begin{aligned}
 D1: \text{DIV}_{i,t} = & \alpha_0 + \beta_1 \text{ROA}_{i,t} + \beta_2 \text{MTB}_{i,t} + \beta_3 \text{FCFF}_{i,t} \\
 & + \beta_4 \text{CAPEX}_{i,t} + \beta_5 \text{R\&D}_{i,t} + \beta_6 \text{RETA}_{i,t-1} \\
 & + \beta_7 \text{DE}_{i,t} + \beta_8 \text{OPRISK}_{i,t} + \beta_9 \text{BETA}_{i,t} \\
 & + \beta_{10} \text{CR}_{i,t} + \beta_{11} \text{SIZE}_{i,t} + \beta_{12} \text{AGE}_{i,t} \\
 & + \beta_{13} \text{INS}_{i,t} + \beta_{14} \text{OWNTYPE}_{i,t} + \varepsilon_{i,t} \quad (1)
 \end{aligned}$$

Model D2 examines factors affecting dividend payouts for the sample groups (non-family, family, and family-controlled firms):

$$\begin{aligned}
 D2: \text{DIV}_{i,t} = & \alpha_0 + \beta_1 \text{ROA}_{i,t} + \beta_2 \text{MTB}_{i,t} + \beta_3 \text{FCFF}_{i,t} \\
 & + \beta_4 \text{CAPEX}_{i,t} + \beta_5 \text{R\&D}_{i,t} + \beta_6 \text{RETA}_{i,t-1} \\
 & + \beta_7 \text{DE}_{i,t} + \beta_8 \text{OPRISK}_{i,t} + \beta_9 \text{BETA}_{i,t} \\
 & + \beta_{10} \text{CR}_{i,t} + \beta_{11} \text{SIZE}_{i,t} + \beta_{12} \text{AGE}_{i,t} \\
 & + \beta_{13} \text{FAM}_{i,t} + \varepsilon_{i,t} \quad (2)
 \end{aligned}$$

## 5. Results

This section presents summary statistics and regression estimates of the sample data. Further, it offers a discussion of the results in detail.

### 5.1. Summary Statistics

Table 2 provides descriptive statistics (mean and standard deviation) of the important variables used in the

study. The average dividend payouts are 18.96%, 13.94%, and 12.59% for non-family, family, and family-controlled firms, respectively. These findings are consistent with the entrenchment hypothesis (H<sub>1</sub>). Family firms with lower profitability (ROA) suggest competence concerns among family members than non-family firms. Family firms' low firm value (MTB) shows information asymmetry leading to value erosion. Leverage (DE) and risks (OPRISK & BETA) are higher for family firms; however, SIZE and AGE are lower than non-family counterparts. These findings suggest ownership diffusion with maturity.

### 5.2. Empirical Findings

This section provides the regression estimates of the factors influencing dividend payout for the sample firms from India. The unit root tests suggest that data are stationary. The diagnostic tests (Wald test, Breusch-Pagan test, and Hausman test) suggest a fixed effects (FE) regression model.

Table 3 reports FE regression estimates of Model D1 at the aggregate level. The study shows that family and family-control dummies negatively influence the dividend payout, supporting the entrenchment hypothesis (H2). The negative impact of free cash flow over dividends is contrary to the hypothesis (H3). Further, we analyzed the relationship between free cash flow and total dividends (robustness) and observed a negative relation. Family firms prefer fewer dividends but a higher market valuation. Growth and

**Table 2:** Variables: Descriptive Statistics

Variables	NON-FAMILY (147)		FAMILY (222)		FAMCON (149)	
	Mean	SD	Mean	SD	Mean	SD
DIV	0.1896	0.2245	0.1394***	0.1846	0.1259***	0.1143
FAM	0.9444	2.0814	32.2451***	21.1953	42.4990***	17.8412
INS	18.3956	13.8631	13.3520***	13.3734	11.0609***	11.3055
ROA	0.1480	0.0927	0.1292***	0.0861	0.1236***	0.0768
MTB	3.9967	4.9352	2.5798***	3.0339	2.2924***	2.6484
FCFF	0.0958	0.1933	0.0885	0.0903	0.0863	0.0833
CAPEX	0.0434	0.0558	0.0458	0.0633	0.0437	0.0585
R&D	0.0047	0.0109	0.0057**	0.0127	0.0057**	0.0137
RETA	0.3979	0.1867	0.3707***	0.1929	0.3726***	0.1983
DE	0.4562	0.8271	0.6542***	0.7114	0.6626***	0.7551
OPRISK	3.6838	3.1924	3.4012***	3.3382	3.5645	3.6614
BETA	0.9310	0.3420	0.9793***	0.3776	0.9842***	0.3794
CR	1.7364	2.3179	1.9521**	3.1591	2.1103***	3.7318
SIZE	7.4354	1.4381	6.7259***	1.3187	6.5053***	1.2659
AGE	3.6611	0.5321	3.4146***	0.4825	3.3399***	0.4471

Notes: This table presents the descriptive statistics of key parameters for non-family, family, and family-controlled firms. DIV, dividend-to-EBIT ratio, indicates the dividend payout ratio of the firm. FAM and INS specify the proportion of ownership held by family and institutional investor groups. ROA, return of assets, and MTB, market-to-book value, denotes profitability and firm value, respectively. FCFF, CAPEX, and R&D present free cash flow, capital expenditure, and research and development expenses. RETA and DE depict cumulative retained earnings and financial leverage, respectively. OPRISK, BETA, and CR specify operating risk, systematic risk, and firm liquidity, respectively. SIZE and AGE stand for firm size and firm age, respectively. Table 1 defines each variable. \*\*\*, \*\* denote statistical significance at the 1% and 5% level, respectively, for FAMILY and FAMCON w.r.t. NON-FAMILY firms.

expansion require investment. The possible reasons could be investment needs in the future, leading to low dividend payouts among India’s family firms. The low payment of dividends among family firms supports the rent extraction hypothesis. As expected, firm liquidity measured by the current ratio (CR) is negatively related to the payout. Higher dividend payouts lead to the shirking of cash position, thus, lowering the firms’ liquidity.

The results indicate that accumulated retained earnings (lag) enhance firms’ capacity to pay dividends in the future. However, no clear trend is observed between the variability in earnings (OPRISK) and the dividend payout. The negative influence of CAPEX supports the hypothesis (H4). Leverage (DE) and systematic risk (BETA) negatively affect dividend payout, supporting hypotheses H5 (capital structure) and H6 (uncertainty), respectively. Contrary to the maturity hypothesis (H7), size is negatively related to the payout. Additionally, the positive impact of firm value (MTB) supports the argument that high dividend-paying firms command a value premium.

Table 4 offers FE regression estimates of Model D2 for non-family, family, and family-controlled firms. FAM negatively affects the dividend payout of family firms (entrenchment hypothesis H2). However, it is not significant for family-controlled firms, suggesting a leading role of the family-control. The negative influence of FCFF shows that dividend payments induce a cash crunch among family and family-controlled firms (not significant for non-family firms), contrary to the free cash flow hypothesis (H3). However, the negative influence of CAPEX supports the hypothesis (H4) for family and family-controlled firms.

The results indicate that accumulated retained earnings (lag) enhance firms’ capacity to pay dividends in the future. However, no clear trend is observed between the change in earnings (OPRISK) and the dividend payout. The negative influence of leverage over dividends for family and family-controlled firms supports the capital structure (H5) hypothesis. Systematic risk negatively influences dividend payout for the three sample groups, consistent with the uncertainty hypothesis (H6). The positive effect of firm age

**Table 3:** Family Firms and Dividend Payout: Full Sample Firms

This table presents the fixed effects regression estimates where coefficients are estimated by fitting the panel linear model D1 (Equation 1) for the sample firms at the aggregate level:

$$DIV_{i,t} = \alpha_0 + \beta_1 ROA_{i,t} + \beta_2 MTB_{i,t} + \beta_3 FCFF_{i,t} + \beta_4 CAPEX_{i,t} + \beta_5 R\&D_{i,t} + \beta_6 RETA_{i,t-1} + \beta_7 DE_{i,t} + \beta_8 OPRISK_{i,t} + \beta_9 BETA_{i,t} + \beta_{10} CR_{i,t} + \beta_{11} SIZE_{i,t} + \beta_{12} AGE_{i,t} + \beta_{13} INS_{i,t} + \beta_{14} OWNTYPE_{i,t} + \varepsilon_{i,t}$$

Model	M1		M2	
	Coefficient	t-ratio	Coefficient	t-ratio
Intercept	0.1902***	5.1600	0.2171***	5.8900
ROA	0.0138	0.2600	0.0075	0.1400
MTB	0.0140***	13.8500	0.0139***	13.8700
FCFF	-0.2492***	-4.7500	-0.2518***	-4.8100
CAPEX	-0.3482***	-5.1800	-0.3595***	-5.3600
R&D	0.0647	0.2400	0.0969	0.3600
RE (-1)	0.1626***	7.3000	0.1646***	7.4100
DE	-0.0218***	-4.2900	-0.0215***	-4.2500
OPRISK	0.0016	1.5600	0.0016	1.6100
BETA	-0.0655***	-6.1300	-0.0662***	-6.2100
CR	-0.0031***	-2.6400	-0.0030**	-2.4900
SIZE	-0.0073**	-2.3100	-0.0082***	-2.6200
AGE	0.0122*	1.7700	0.0074	1.0600
INS	0.0002	0.8000	0.0001	0.4500
FAMILY	-0.0214***	-3.0800	-	-
FAMCON	-	-	-0.0358***	-5.0800
Time dummies	Included		Included	
Sector dummies	Included		Included	
Adjusted R <sup>2</sup>	17.80%		18.16%	
F-test	F (23, 3662) = 32.37		F (23, 3662) = 33.22	
P-value	< 0.0001		< 0.0001	
Observations	3,690		3,690	

Notes: DIV indicates the dividend payout ratio, ROA and MTB denote profitability and firm value, respectively. FCFF, CAPEX, and R&D present free cash flow, capital expenditure, and research and development expenses. RETA and DE depict cumulative retained earnings and financial leverage, respectively. OPRISK, BETA, and CR specify operating risk, systematic risk, and firm liquidity, respectively. SIZE and AGE stand for firm size and firm age, respectively. INS refers to the proportion of ownership held by institutional investors. FAMILY and FAMCON are binary dummy variables corresponding to family and family-control firms, respectively. Table 1 defines each variable. \*\*\*, \*\*, \* denote statistical significance at the 1%, 5%, and 10% level, respectively.



**Table 4:** Factors Affecting Dividend Payouts: Family Ownership Concentration

This table presents the fixed effects regression estimates where coefficients are estimated by fitting the panel linear model D2 (Equation 2) for non-family, family, and family-controlled firms:

$$DIV_{i,t} = \alpha_0 + \beta_1 ROA_{i,t} + \beta_2 MTB_{i,t} + \beta_3 FCFF_{i,t} + \beta_4 CAPEX_{i,t} + \beta_5 R\&D_{i,t} + \beta_6 RETA_{i,t-1} + \beta_7 DE_{i,t} + \beta_8 OPRISK_{i,t} + \beta_9 BETA_{i,t} + \beta_{10} CR_{i,t} + \beta_{11} SIZE_{i,t} + \beta_{12} AGE_{i,t} + \beta_{13} FAM_{i,t} + \varepsilon_{i,t}$$

	Non-family Firms		Family Firms		Family-Controlled Firms	
	Coefficient	t-ratio	Coefficient	t-ratio	Coefficient	t-ratio
Intercept	0.1798***	2.7800	0.2363***	5.5600	0.0272	0.8500
ROA	0.0147	0.1400	-0.0605	-1.0300	-0.0129	-0.2700
MTB	0.0120***	8.2400	0.0148***	9.1400	0.0059***	4.8800
FCFF	-0.0882	-0.9100	-0.3322***	-5.4500	-0.2190***	-4.7600
CAPEX	-0.1731	-1.3300	-0.4051***	-5.3400	-0.2356***	-4.2600
R&D	-0.0699	-0.1400	0.1649	0.5300	0.7498***	3.8100
RE (-1)	0.2039***	5.0300	0.1413***	5.3600	0.1318***	7.6200
DE	-0.0090	-1.1800	-0.0336***	-4.8100	-0.0217***	-4.8600
OPRISK	0.0019	0.9700	0.0013	1.1200	0.0013*	1.8100
BETA	-0.0755***	-3.6000	-0.0624***	-5.1700	-0.0374***	-4.5600
CR	-0.0067***	-2.6300	-0.0017	-1.3600	-0.0004	-0.5400
SIZE	-0.0172***	-4.0400	0.0026	0.8100	-0.0082***	-3.6900
AGE	0.0268**	2.3000	-0.0081	-0.9200	0.0238***	3.6900
FAM	-0.0036	-1.2900	-0.0008***	-4.4300	0.0000	-0.0800
Time dummies	Included		Included		Included	
Sector dummies	Included		Included		Included	
Adjusted R <sup>2</sup>	16.63%		19.26%		32.31%	
F-test	F (22, 1443) = 11.57		F (22, 2193) = 21.16		F (22, 1463) = 26.78	
P-value	< 0.0001		< 0.0001		< 0.0001	
Observations	1,470		2,220		1,490	

Notes: DIV indicates the dividend payout ratio, ROA and MTB denote profitability and firm value, respectively. FCFF, CAPEX, and R&D present free cash flow, capital expenditure, and research and development expenses. RETA and DE depict cumulative retained earnings and financial leverage, respectively. OPRISK, BETA, and CR specify operating risk, systematic risk, and firm liquidity, respectively. SIZE and AGE stand for firm size and firm age, respectively. INS refers to the proportion of ownership held by institutional investors. FAMILY and FAMCON are binary dummy variables corresponding to family and family-control firms, respectively. Table 1 defines each variable. \*\*\*, \*\*, \* denote statistical significance at the 1%, 5%, and 10% level, respectively.

on dividend payouts for non-family and family-controlled firms supports the maturity hypothesis (H7); however, a negative relation of firm size on dividend payout is contrary to the same hypothesis.

### 5.3. Robustness Test

The study provides pooled-OLS and random-effects estimates consistent with the fixed-effects estimate at the aggregate level. For parameter robustness, the study uses dividend per share (DPS) as an alternative measure to examine the major determinants of dividend payout. Three-year panel data (FY10–12) estimates dividend payment factors for time robustness. Generally, estimations provide robust and consistent results for the dividend distribution policy. The robustness estimates are available on request.

## 6. Conclusion and Implications

This paper examines the dividend behaviour of Indian firms using panel data having 4,059 firm-year between 2006 and 2017. The study explains how family ownership concentration affects payout decisions and why firms pay dividends.

Family firms have a lower payout and higher debt than non-family firms. Further, evidence shows a negative relation of leverage with dividend payout for family and family-controlled firms (insignificant for non-family). These findings suggest that Indian family firms prefer lower payouts and have a greater reliance on debt, like Indonesian family firms (Mulyani et al., 2016). Further, the expropriation of external shareholders could relate to weak corporate governance, and poor protection of external investors, wherein poorly governed firms tend to accumulate cash (Kusnadi, 2011). Family firms are less profitable and have low firm value. This evidence suggests that family members are less competent and information asymmetry tends to erode firm value.

Traditionally, firms pay dividends to satisfy the controlling shareholders. The evidence suggests that family ownership concentration and management control lead to lower dividend payout among Indian firms (Kumar, 2006; Sharma & Wadhwa, 2013), suggesting that the majority shareholders (owner-managers) tend to expropriate the external shareholders (minority). These findings are consistent with the entrenchment hypotheses (H<sub>1</sub> and H<sub>2</sub>). However, the institutional ownership role is not significant in influencing the payout policy of Indian firms. Potential rent extraction (entrenchment) suggests a need for more transparency and investor protection. These results are consistent with recent literature involving developed markets (Baker & Kapoor, 2015), showing that dividend payout

decisions are contextual and dynamic and do not conform to the one-size-fits-all model.

The analysis shows that free cash flow and capital expenditure present conflicting evidence for the cash flow hypothesis (H3 and H4). The negative impact of capital expenditure on payout support hypothesis (H4) states that investments reduce free cash and lower the dividend payout. The results show that accumulated retained earnings (past) enhance the probability of dividend payouts, which supports the hypothesis (H3). Yet, evidence shows that free cash has a negative influence, contrary to the hypothesis (H3), suggesting dividend payouts lead to shrinking cash. Financial leverage and systematic risk negatively affect dividends across all sample groups, consistent with the capital structure hypothesis (H5) and uncertainty hypothesis (H6). However, firm size and age provide conflicting evidence for the maturity hypothesis (H7) for Indian firms.

This study contributes to the literature in several ways. As the agency problem is one of the catching issues among scholars, the analyses highlight the issue by investigating dividend policy and the influence of ownership structure. The empirical outcomes could help managers validate initiatives undertaken to enhance firm performance, mainly among family firms. Optimal payout strategies may help corporate managers reduce information asymmetry and enhance firm performance and shareholders' wealth. The findings could justify policymakers' initiatives for better performance, especially for family-controlled firms. Corporate managers can reduce information asymmetry by adopting distribution and financing strategies, enhancing firm performance and shareholders' wealth.

The negative relation between family ownership and family control with dividend payout indicates possible expropriation of external shareholders. High dividend payments are likely to affect a firm's cash position but help to reduce information asymmetry. Our analysis confirms that family firms' high information asymmetry and under- diversification of ownership erode firm value. Retail and non-promoter institutional investors may be sceptical about high risk due to low transparency. High ownership concentration means the dilution is less among Indian family firms. It (low dilution) may hamper the trading volume in the stock market, leading to liquidity risk. To avoid this, the regulator may keep a maximum threshold on the family ownership proportion, and a cap on voting rights may help achieve better corporate governance. Additionally, share splits may help increase the trading volume leading to enhanced trading liquidity. Retail investors, who prefer dividends as a source of income, may invest in family firms with concentrated ownership but pay high dividends.

The negative influence of systematic risk over dividend payouts confirms that firms with high risks prefer lower

payouts. Although family firms have higher risk levels, they still have a higher proportion of debt than non-family firms. This finding shows that family ownership concentration and reputation are intangible collateral for financial institutions. Therefore, corporate managers should increase payouts while paying close attention to the firm's cash position.

Future research can include a detailed investigation of sector-specific firms while examining dividend behaviour among Indian firms. Share repurchases and employee stock ownership plans (ESOP) are other methods of distributing profits and sharing benefits. Further, a group of investors (clienteles effect) may prefer capital gain to dividend payout (growth *versus* income), often for tax purposes. Investors groups may vary by age as well as income level. The sample can be segregated based on the price-to-book ratio (value stocks) and dividend yield (dividend stocks) to add insights into Indian firms' dividend behaviour. Further, family firms have concerns about governance, operation, and succession. Field research and case studies might add value to empirical findings and provide insights into family firms' operations. The heterogeneity across countries, including cultural differences, might impose challenges for research design and affect results interpretation.

## References

- Abdelsalam, O., El-Masry, A., & Elsegini, S. (2008). Board composition, ownership structure, and dividend policies in an emerging market. *Managerial Finance*, 34(12), 953–964. <https://doi.org/10.1108/03074350810915879>
- Abor, J., & Bokpin, G. A. (2010). Investment opportunities, corporate finance, and dividend payout policy. *Studies in Economics and Finance*, 27(3), 180–194. <https://doi.org/10.1108/10867371011060018>
- Adaoglu, C. (2000). Instability in the dividend policy of the Istanbul Stock Exchange (ISE) corporations: Evidence from an emerging market. *Emerging Markets Review*, 1(3), 252–270. [https://doi.org/10.1016/S1566-0141\(00\)00011-X](https://doi.org/10.1016/S1566-0141(00)00011-X)
- Nizar Al-Malkawi, H. N. (2007). Determinants of corporate dividend policy in Jordan: An application of the Tobit model. *Journal of Economic and Administrative Sciences*, 23(2), 44–70. <https://doi.org/10.1108/10264116200700007>
- Anderson, R. C., & Reeb, D. M. (2003). Founding-family ownership, corporate diversification, and firm leverage. *Journal of Law and Economics*, 46(2), 653–684. <https://doi.org/10.1086/377115>
- Andres, C. (2008). Large shareholders and firm performance: An empirical examination of founding-family ownership. *Journal of Corporate Finance*, 14(4), 431–445. <https://doi.org/10.1016/j.jcorpfin.2008.05.003>
- Baker, H. K., & Kapoor, S. (2015). Dividend policy in India: New survey evidence. *Managerial Finance*, 41(2), 182–204. <https://doi.org/10.1108/MF-01-2014-0024>
- Baker, H. K., Veit, E. T., & Powell, G. E. (2001). Factors influencing dividend policy decisions of Nasdaq firms. *Financial Review*, 36(3), 19–38. <https://doi.org/10.1111/j.1540-6288.2001.tb00018.x>
- Baltagi, B. H., & Baltagi, B. H. (2008). *Econometric analysis of panel data*. NY: Springer.
- Benartzi, S., Michaely, R., & Thaler, R. (1997). Do changes in dividends signal the future or the past? *Journal of Finance*, 52(3), 1007–1034. <https://doi.org/10.1111/j.1540-6261.1997.tb02723.x>
- Bernstein, P. L. (1998). The hidden risks in low payouts. *Journal of Portfolio Management*, 25(1), 1. <https://doi.org/10.3905/jpm.25.1.1>
- Bertrand, M., & Schoar, A. (2006). The role of the family in family firms. *Journal of Economic Perspectives*, 20(2), 73–96. <https://doi.org/10.1257/jep.20.2.73>
- Bhat, R., & Pandey, I. M. (1994). *Dividend decision: A study of managers perception*. NY: Springer.
- Chay, J. B., & Suh, J. (2009). Payout policy and cash-flow uncertainty. *Journal of Financial Economics*, 93(1), 88–107. <https://doi.org/10.1016/j.jfineco.2008.12.001>
- Claessens, S., Djankov, S., & Lang, L. H. P. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, 58(1–2), 81–112. [https://doi.org/10.1016/S0304-405X\(00\)00067-2](https://doi.org/10.1016/S0304-405X(00)00067-2)
- Cleary, S. (2006). International corporate investment and the relationships between financial constraint measures. *Journal of Banking and Finance*, 30(5), 1559–1580. <https://doi.org/10.1016/j.jbankfin.2005.03.023>
- Das, S. (2017). Firm characteristics and dividend policy in India. *Transnational Corporations Review*, 9(3), 190–200. <https://doi.org/10.1080/19186444.2017.1362862>
- DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006). Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory. *Journal of Financial Economics*, 81(2), 227–254. <https://doi.org/10.1016/j.jfineco.2005.07.005>
- Denis, D. J., & Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy\*. *Journal of Financial Economics*, 89(1), 62–82. <https://doi.org/10.1016/j.jfineco.2007.06.006>
- Dewasiri, N. J., Yatiwelle Koralalage, W. B., Abdul Azeez, A., Jayarathne, P. G. S. A., Kuruppuarachchi, D., & Weerasinghe, V. A. (2019). Determinants of dividend policy: Evidence from an emerging and developing market. *Managerial Finance*, 45(3), 413–429. <https://doi.org/10.1108/MF-09-2017-0331>
- Faccio, M., & Lang, L. H. P. (2000). *Separation of ownership from control: An analysis of ultimate ownership in Western Europe*. HK: Chinese University of Hong Kong.
- Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics*, 65(3), 365–395. [https://doi.org/10.1016/S0304-405X\(02\)00146-0](https://doi.org/10.1016/S0304-405X(02)00146-0)

- Fairchild, R., Guney, Y., & Thanatawee, Y. (2014). Corporate dividend policy in Thailand: Theory and evidence. *International Review of Financial Analysis*, 31, 129–151. <https://doi.org/10.1016/j.irfa.2013.10.006>
- Forti, C. A. B., Peixoto, F. M., & Alves, D. Le. (2015). Fatores determinantes do pagamento de dividendos no Brasil. *Revista Contabilidade and Finanças*, 26(68), 167–180. <https://doi.org/10.1590/1808-057x201512260>
- Glen, J. D., Karmokolias, Y., Miller, R. R., & Shah, S. (1995). *Dividend policy and behavior in emerging markets: To pay or not to pay*. Washington DC: World Bank.
- Gomez-Mejia, L. R., Nunez-Nickel, M., & Gutierrez, I. (2001). The role of family ties in agency contracts. *Academy of Management Journal*, 44(1), 81–95.
- Gordon, M. J. (1959). Dividends, earnings, and stock prices. *Review of Economics and Statistics*, 41(2), 99–105. <https://doi.org/10.2307/1927792>
- Gordon, M. J. (1962). *The investment, financing, and valuation of the corporation*. Illinois: Irwin Publishing, Inc.
- Griffin, P. A., Lont, D. H., & Sun, Y. (2010). Agency problems and audit fees: Further tests of the free cash flow hypothesis. *Accounting and Finance*, 50(2), 321–350. <https://doi.org/10.1111/j.1467-629X.2009.00327.x>
- Grullon, G., Michaely, R., & Swaminathan, B. (2002). Are dividend changes a sign of firm maturity? *Journal of Business*, 75(3), 387–424. <https://doi.org/10.1086/339889>
- Gugler, K. (2003). Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment. *Journal of Banking and Finance*, 27(7), 1297–1321. [https://doi.org/10.1016/S0378-4266\(02\)00258-3](https://doi.org/10.1016/S0378-4266(02)00258-3)
- Gupta, A., & Banga, C. (2010). The determinants of corporate dividend policy. *Decision*, 37(2), (0304–0941).
- Ho, J. L., & Kang, F. (2013). Auditor choice and audit fees in family firms: Evidence from the S&P 1500. *Auditing: a Journal of Practice and Theory*, 32(4), 71–93. <https://doi.org/10.2308/ajpt-50533>
- Jensen, G. R., Solberg, D. P., & Zorn, T. S. (1992). Simultaneous determination of insider ownership, debt, and dividend policies. *Journal of Financial and Quantitative Analysis*, 27(2), 247–263. <https://doi.org/10.2307/2331370>
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *SSRN Electronic Journal*, 76(2), 323–329. <https://doi.org/10.2139/ssrn.99580>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kadioglu, E., & Yilmaz, E. A. (2017). Is the free cash flow hypothesis valid in Turkey? *Borsa Istanbul Review*, 17(2), 111–116. <https://doi.org/10.1016/j.bir.2016.12.001>
- Kanakriyah, R. (2020). Dividend policy and companies' financial performance. *Journal of Asian Finance, Economics, and Business*, 7(10), 531–541. <https://doi.org/10.13106/jafeb.2020.vol7.no10.531>
- Kevin, S. (1992). Dividend policy: An analysis of some determinants. *Finance India*, 6(2), 253–259.
- Kumar, J. (2006). Ownership structure and dividend payout policy in India. *Journal of Emerging Market Finance*, 5(1), 15–58. <https://doi.org/10.1177/097265270500500102>
- Kusnadi, Y. (2011). Do corporate governance mechanisms matter for cash holdings and firm value? *Pacific-Basin Finance Journal*, 19(5), 554–570. <https://doi.org/10.1016/j.pacfin.2011.04.002>
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *Journal of Finance*, 54(2), 471–517. <https://doi.org/10.1111/0022-1082.00115>
- Labhane, N. B., & Mahakud, J. (2016). Determinants of dividend policy of Indian companies: A panel data analysis. *Paradigm*, 20(1), 36–55. <https://doi.org/10.1177/0971890716637698>
- Lintner, J. (1956). Distribution of incomes of corporations among dividends retained earnings and taxes. *American Economic Review*, 46(2), 97–113.
- Madyan, M., Setiawan, W. R., Setianto, R. H., Al-Islami, M. A. L. I. F., & Shidiq, H. A. (2021). The relationship between family ownership, CEO demographic characteristics and dividend policy: Evidence from Indonesia. *Journal of Asian Finance, Economics, and Business*, 8(12), 159–167. <https://doi.org/10.13106/jafeb.2021.vol8.no12.0159>
- Mahapatra, R. P., & Sahu, P. K. (1993). A note on determinants of corporate dividend behavior in India-An econometric analysis. *Decision*, 20(1), 1.
- Manos, R., Murinde, V., & Green, C. J. (2012). Dividend policy and business groups: Evidence from Indian firms. *International Review of Economics and Finance*, 21(1), 42–56. <https://doi.org/10.1016/j.iref.2011.05.002>
- Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *Journal of Business*, 34(4), 411–433. <https://doi.org/10.1086/294442>
- Mohanty, P. (1999). Dividend and bonus policies of Indian companies: An analysis. *Vikalpa: The Journal for Decision Makers*, 24(4), 35–42. <https://doi.org/10.1177/0256090919990406>
- Mulyani, E., Singh, H., & Mishra, S. (2016). Dividends, leverage, and family ownership in the emerging Indonesian market. *Journal of International Financial Markets, Institutions, and Money*, 43, 16–29. <https://doi.org/10.1016/j.intfin.2016.03.004>
- Pattiruhu, J. R., & Paais, M. (2020). Effect of liquidity, profitability, leverage, and firm size on dividend policy. *Journal of Asian Finance, Economics, and Business*, 7(10), 35–42. <https://doi.org/10.13106/jafeb.2020.vol7.no10.035>
- Ragunathan, V., & Das, P. (1999). *Corporate performance-post liberalization*. ND: Tata McGraw
- Ramli, N. M. (2010). Ownership structure and dividend policy: Evidence from Malaysian companies. *International Review of Business Research Papers*, 6, 1, 170–180.



- Ranajee, R., Pathak, R., & Saxena, A. (2018). To pay or not to pay: What matters the most for dividend payments? *International Journal of Managerial Finance*, 14(2), 230–244. <https://doi.org/10.1108/IJMF-07-2017-0144>
- Richardson, S. (2006). Over-investment of free cash flow. *Review of Accounting Studies*, 11(2–3), 159–189. <https://doi.org/10.1007/s11142-006-9012-1>
- Roy, A. (2015). Dividend policy, ownership structure and corporate governance: An empirical analysis of Indian firms. *Indian Journal of Corporate Governance*, 8(1), 1–33. <https://doi.org/10.1177/0974686215574422>
- 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>
- Scott, J. H. (1977). Bankruptcy, secured debt, and optimal capital structure. *Journal of Finance*, 32(1), 1–19. <https://doi.org/10.1111/j.1540-6261.1977.tb03237.x>
- Sharma, D. K., & Wadhwa, R. (2013). Ownership structure and dividend policy-A study of Bombay Stock Exchange-500. *Global Journal of Management and Business Studies*, 3(4), 429–434.
- Singhania, M., & Gupta, A. (2012). Determinants of corporate dividend policy: A Tobit model approach. *Vision*, 16(3), 153–162. <https://doi.org/10.1177/0972262912460152>
- Thanatawee, Y. (2011). Life-cycle theory and free cash flow hypothesis: Evidence from dividend policy in Thailand. *International Journal of Financial Research*, 2(2), 52. <https://doi.org/10.5430/ijfr.v2n2p52>
- Villalonga, B., & Amit, R. (2006). How do family ownership, control, and management affect firm value? *Journal of Financial Economics*, 80(2), 385–417. <https://doi.org/10.1016/j.jfineco.2004.12.005>
- Villalonga, B., & Amit, R. (2010). Family control of firms and industries. *Financial Management*, 39(3), 863–904. <https://doi.org/10.1111/j.1755-053X.2010.01098.x>
- Walter, J. E. (1956). Dividend policies and common stock prices. *Journal of Finance*, 11(1), 29–41. <https://doi.org/10.1111/j.1540-6261.1956.tb00684.x>
- Wei, Z., Wu, S., Li, C., & Chen, W. (2011). Family control, institutional environment and cash dividend policy: Evidence from China. *China Journal of Accounting Research*, 4(1–2), 29–46. <https://doi.org/10.1016/j.cjar.2011.04.001>
- Yusof, Y., & Ismail, S. (2016). Determinants of dividend policy of public listed companies in Malaysia. *Review of International Business and Strategy*, 26(1), 88–99. <https://doi.org/10.1108/RIBS-02-2014-0030>

## Appendix

### Appendix A1: Composition: Sectoral and Ownership Type

This table presents the sectoral composition of sample firms and their ownership based on family ownership concentration.

Sector	Notation	All Firms	NON-FAMILY	FAMILY	FAMCON
Chemicals	CHEM	89	33	56	40
Construction	CONS	58	22	36	21
Consumer durables	DUR	52	24	28	20
Machinery & transport equipment	MACH	86	38	48	33
Services	SERV	84	30	54	35
<b>Total</b>		<b>369</b>	<b>147</b>	<b>222</b>	<b>149</b>