



Family Ownership and Corporate Performance: Evidence from Listed Indian Companies

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Abstract – This study examines the association between family ownership and financial characteristics of listed Indian companies. Using balanced panel data for 50 firms over the period 2020–2025, comprising 300 firm-year observations, the study investigates the relationship between family ownership and corporate performance. The analysis employs panel regression techniques, including fixed-effects and two-way random-effects models, along with diagnostic and robustness tests. The findings indicate a positive association between Family Holding and EPS. The results also indicate significant cross-sectional dependence among the sampled firms, supporting the use of robust estimation. Overall, the findings suggest that family ownership is more closely associated with firm size and, to a lesser extent, earnings performance, while liquidity and leverage show no statistically significant relationship within the sampled Indian listed firms.

Keywords - Family Ownership; Family Holding; Firm Performance; Earnings per Share; Firm Size; Indian Listed Companies; Corporate Governance

I. INTRODUCTION

Ownership structure is an important dimension of corporate governance because the identity and concentration of owners can influence managerial incentives, monitoring and corporate decision-making (Srivastava & Bhatia, 2020). Family ownership may strengthen monitoring and align shareholders' interests with firm value, but it can also create conflicts between controlling and minority shareholders (Gong & Liu, 2025). Thus, the nature and extent of ownership may have important implications for firm performance (Shleifer & Vishny, 1997). Family ownership is one of the most prevalent forms of concentrated ownership across developed and emerging economies and has an important role in business and economic activity (Leppäaho & Ritala, 2022). Family firms have attracted growing scholarly attention because family ownership represents a prominent form of corporate ownership across economies. Family-controlled firms account for around 44% of firms in Western Europe (Faccio & Lang, 2002), nearly two-thirds of firms in East Asia (Claessens et al., 2000), and approximately 30% of firms globally (La Porta et al., 1999). These figures highlight the widespread presence of family ownership and the important role of families in shaping business organisations and corporate control (Bertrand & Schoar, 2006). In order to ensure their competitiveness and survival in the long term, family businesses must find a balance in its economic performance, without losing sight of the most distinctive goal of this type of business: their legacy for future family generations, i.e., dynastic ambitions (e.g., Radu-Lefebvre et al. 2024; Bouncken and Schmitt 2022).

Family ownership may enhance firm performance by aligning the interests of owners and managers and

encouraging closer monitoring of managerial decisions, having a long-term commitment to the firm, greater firm-specific knowledge and stronger incentives to protect its reputation and value (Giovannini, 2010). These characteristics can reduce agency conflicts and encourage decisions that support long-term firm performance. The existence of such a large proportion of family firms across the globe has led to research on the influence of family ownership on performance of listed firms (Domańska et al. 2023; Hung et al. 2023; Miroshnychenko et al. 2022). However, family ownership may also create challenges for firm performance. Family owners may become entrenched in decision-making, prioritise family interests and create conflicts with minority shareholders (Miller et al., 2007). Such practices may weaken monitoring and lead to decisions that do not necessarily maximise shareholder value, potentially affecting firm performance.

Despite extensive research, the evidence on family ownership and firm performance remains mixed. Prior studies have reported positive, negative and insignificant relationships, with differences partly attributed to the definition of family ownership, performance measures, sample characteristics and research methods (Dyer, 2006; Miller et al., 2007). Moreover, existing evidence has produced different conclusions across countries and institutional settings (Claessens et al., 2000; Anderson & Reeb, 2003; Maury, 2006). This continuing inconsistency highlights the need for further evidence from the Indian corporate context. India provides an important setting for this examination given the prevalence of family-controlled listed firms and its evolving corporate governance environment (Srivastava & Bhatia, 2020). India provides an important setting for examining family ownership and firm performance given its rapid economic growth (Hussain & Mukherjee, 2025a), with GDP growth rate



7.8% in the first quarter of FY 2026–27 , and ambition to become a developed economy by 2047 (Hussain & Mukherjee, 2025b). The prevalence of family-controlled businesses within its evolving corporate sector makes understanding the performance implications of family ownership particularly relevant.

Against this background, the present study examines the relationship between family ownership and financial performance among Indian listed companies. Using panel data, the study assesses whether family ownership is associated with firm performance after accounting for relevant firm-specific factors. The study contributes to the existing literature by providing further evidence from the Indian corporate context and examining the financial implications of family ownership in listed firms. The study contributes to the literature by providing recent evidence on the relationship between family ownership and financial performance in an emerging-market context. Focusing on Indian listed companies, it adds to the mixed empirical evidence on whether family ownership creates performance benefits or potential disadvantages. The findings also provide insights into the role of family ownership in shaping the financial outcomes of firms within India's evolving corporate environment.

The study is organised as follows. Section 2 reviews the relevant literature and develops the hypotheses, while Section 3 presents the research methodology, including the data, variables, and model specification. Section 4 reports and discusses the empirical results. Finally, Section 5 concludes the study by summarising the key findings, implications, and limitations.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

1. Theoretical Underpinning

This study draws on Agency Theory and Stewardship Theory to explain how family ownership may influence financial performance. Agency Theory suggests that separation between ownership and management can create conflicts of interest and monitoring costs. In family-owned firms, family owners often have substantial involvement in the business and stronger incentives to monitor managerial decisions, protect firm resources and safeguard long-term firm value. Such monitoring can reduce agency costs and contribute to better financial performance (Muttakin et al., 2014). However, family ownership may also give controlling families greater influence over corporate decisions, which can create conflicts with minority shareholders when family interests differ from those of other investors. Stewardship Theory provides a complementary perspective by viewing family owners as stewards who may be committed to the long-term survival and success of the firm. Their stronger identification with the business, long-term orientation and concern for its

continuity may encourage decisions that support sustained firm performance (Chahal & Sharma, 2022). Together, Agency Theory and Stewardship Theory provide a balanced framework for understanding the potential performance benefits as well as the possible challenges associated with family ownership.

2. Hypothesis Development

Family owners generally have a substantial financial stake in the business and may therefore have stronger incentives to monitor managerial decisions, control the inefficient use of resources and protect the long-term value of the firm. Their close involvement can also provide firms with valuable business knowledge, industry experience and information about internal operations, which may support more informed decision-making (Demsetz & Lehn, 1985; Burkart et al., 2003). In addition, family owners may have a longer-term interest in the survival and growth of the business, particularly when the firm is viewed as an asset to be transferred across generations (James, 1999; Casson, 1999). Empirical evidence supports this possibility, with studies reporting a positive association between family involvement and firm profitability (Maury, 2006; Martínez et al., 2007). Gupta and Nashier (2017) found that family ownership is negatively associated with both accounting and market performance in Indian firms, although the relationship becomes positive at higher levels of family ownership, indicating a U-shaped relationship. Ha et al. (2022) found that firm performance reaches its lowest point when family ownership exceeds 42.53%, indicating that the effect of family ownership may vary with its level. This suggests that higher family ownership does not necessarily translate into better firm performance. However, family ownership may also create conditions that adversely affect firm performance. Greater family influence can lead to the pursuit of family-specific interests, preference for family members in managerial positions and decisions that may not fully reflect the interests of minority shareholders (Forés et al., 2025). Such practices can restrict the use of external managerial expertise and may reduce organisational efficiency (Anderson & Reeb, 2003). Family firms may also place greater emphasis on non-financial objectives, which can result in resources being directed towards family interests rather than the most profitable opportunities. Consistent with this view, previous studies have reported negative or insignificant effects of family ownership on firm performance (Miller et al., 2007; Cucculelli & Micucci, 2008). Overall, the existing evidence remains mixed, suggesting that family ownership can create both advantages and challenges for firm performance. Given these competing possibilities and the continued importance of family-owned businesses in India, examining the relationship between family ownership and financial performance among Indian listed companies is warranted. Accordingly, the following hypothesis is proposed:



H1: Family ownership is significantly associated with the financial performance of Indian listed companies.

III. RESEARCH METHODOLOGY

1. Research Design and Sample

The study adopts a quantitative panel-data research design to examine the relationship between family ownership and earnings performance while controlling for firm-level financial characteristics. The sample comprises 50 firms observed annually over the period 2020–2025, resulting in a balanced panel of 300 firm-year observations. The data are obtained from CMIE Prowess. Family Holding is specified as the dependent variable, EPS as the principal independent variable, and Current Ratio, Debt-to-Equity Ratio, and Firm Size as control variables. All variables used in the empirical analysis are transformed into their natural logarithmic form.

2. Variable Specification

Table 1: Variable Definition and Measurement

Variable	Measurement	Nature	Reference
Family Holding (FH)	% of shares held by promoter individual, HUF, corporates	Dependent	Muttakin et al., 2014
Earnings per Share (EPS)	Earnings per share attributable to equity shareholders	Independent	Agrawal and Bansal (2020)
Current Ratio (CR)	Current Assets / Current Liabilities	Control	Hussain & Mukherjee (2025b)
Debt-to-Equity Ratio (DER)	Total Debt / Shareholders' Equity	Control	Hussain & Mukherjee (2025b)
Firm Size (SIZE)	Natural logarithm of Total Asset	Control	Hussain & Mukherjee (2025b)

Author's Computation

3. Descriptive and Correlation Analysis

Descriptive statistics are initially employed to examine the central tendency, dispersion, skewness, kurtosis, and distributional characteristics of the variables. The Jarque–Bera test is used to assess the normality of the variables. In addition, a correlation matrix is examined to identify the direction and strength of pairwise associations and to provide preliminary evidence of potential multicollinearity among the regressors.

The null hypothesis of the Jarque–Bera test is:

$$H_0: \text{The variable is normally distributed}$$

4. Multicollinearity: Auxiliary Regression and VIF

Multicollinearity among the explanatory and control variables is assessed using the Variance Inflation Factor (VIF). The VIF is calculated through auxiliary regressions, whereby each explanatory variable is, in turn, regressed on all the remaining explanatory and control variables.

For each auxiliary regression, the VIF is calculated as:

$$VIF_j = \frac{1}{1 - R_j^2}$$

..... (1)

where R_j^2 is the coefficient of determination obtained from the auxiliary regression in which variable j is regressed on the remaining regressors. The corresponding tolerance value is:

$$Tolerance_j = 1 - R_j^2 = \frac{1}{VIF_j}$$

..... (2)

The null hypothesis underlying the auxiliary regression is that the variable under consideration is not linearly explained by the remaining regressors:

$$H_0: \beta_1 = \beta_2 = \dots = \beta_k = 0$$

The VIF results are used to show whether multicollinearity is sufficiently pronounced to affect the reliability of the regression estimates.

5. Panel Regression Model

The empirical relationship is examined using a panel regression framework. The model is estimated as follows:

$$FH_{it} = \alpha + \beta_1 EPS_{it} + \beta_2 CR_{it} + \beta_3 DER_{it} + \beta_4 SIZE_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

..... (3)

where FH_{it} represents Family Holding for firm i in year t ; EPS_{it} is the principal independent variable; CR_{it} , DER_{it} , and $SIZE_{it}$ are control variables; μ_i represents firm-specific effects; λ_t represents period-specific effects; and ε_{it} is the idiosyncratic error term.

The initial panel estimation incorporates cross-sectional and period effects to account for unobserved heterogeneity across firms and over time.

6. Hausman Specification Test

The Hausman specification test is employed to determine whether the fixed-effects or random-effects estimator is more appropriate. The test compares the coefficient estimates obtained from the fixed-effects and random-effects models. The Hausman statistic is expressed as:

$$H = (\hat{\beta}_{FE} - \hat{\beta}_{RE})' [Var(\hat{\beta}_{FE}) - Var(\hat{\beta}_{RE})]^{-1} (\hat{\beta}_{FE} - \hat{\beta}_{RE}) \quad (4)$$

The hypotheses are:

H_0 : The random – effects estimator is consistent and appropriate

7. Test for Cross-Sectional Dependence

Since panel observations may be simultaneously affected by common economic, market, industry, or regulatory shocks, the study examines cross-sectional dependence in the residuals using the Breusch–Pagan LM, Pesaran Scaled LM, and Pesaran CD tests.

8. Robust Estimation

Given the evidence of cross-sectional dependence, the final model is estimated using Panel EGLS with two-way random effects and White period cross-section-clustered standard errors. This specification adjusts the standard errors and associated test statistics for cross-sectional clustering, thereby providing more reliable statistical inference in the presence of dependence across firms.

The final model is therefore:

$$FH_{it} = \alpha + \beta_1 EPS_{it} + \beta_2 CR_{it} + \beta_3 DER_{it} + \beta_4 SIZE_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (5)$$

with inference based on cross-section-clustered robust standard errors.

IV. ANALYSIS AND DISCUSSION

1. Preliminary Diagnostic

The descriptive statistics shows substantial heterogeneity across the sampled firms. Family Holding exhibits a relatively balanced distribution around its central tendency, although the positive skewness and significant Jarque–Bera statistic indicates some departure from normality. EPS and ROCE display greater dispersion and positive skewness, suggesting that a relatively small number of firms report exceptionally high profitability levels. This further reflected in their leptokurtic distributions, indicating the presence of extreme observations. The distributional characteristics are particularly pronounced for Current Ratio and Debt-to-

Equity Ratio, both of which shows substantial positive skewness and heavy tails. The considerable divergence between their mean and median values suggests that a limited number of observations with unusually high liquidity and leverage influence the overall distribution. These characteristics highlight the heterogeneous financial structures of the sampled firms and suggest the presence of potential outliers that indicates consideration in subsequent empirical estimation. In contrast, Firm Size displays comparatively lower dispersion and only mild positive asymmetry, indicating greater consistency in firm scale across the sample. However, the Jarque–Bera test rejects normality for all variables, suggesting that the variables do not strictly follow a normal distribution. Given these distributional characteristics, particularly the extreme values observed in liquidity and leverage, the subsequent panel estimations employ appropriate robust inference to reduce the potential influence of non-normality and cross-sectional heterogeneity. Table 4.1.1 presents the descriptive statistics for the study variables based on 300 firm-year observations covering 50 firms over 2020–2025. The statistics provide an overview of the central tendency, dispersion, distributional characteristics, and normality of the variables.

The correlation matrix shown in the table 4.1.2 indicates that the explanatory variables are not strongly linearly correlated with one another. The largest correlation among the explanatory variables is 0.2477 between EPS and ROCE, which is relatively small. Thus, the correlation results provide preliminary evidence that severe multicollinearity is not a major concern in the regression analysis. This conclusion is further supported by the subsequent VIF results shown in the table 4.1.3, where all VIF values are close to 1 i.e., below 4, in-line with in-line with Hussain & Mukherjee (2025a).

The scatter-plot matrix in Figure 1 further supports the correlation findings, as the plots show dispersed observations rather than strong linear relationships among the explanatory variables. The relationships between EPS, ROCE, Current Ratio, Debt-to-Equity Ratio, and Firm Size appear relatively weak, consistent with the low pairwise correlation coefficients. The plots also reveal considerable dispersion and some extreme observations, particularly for Current Ratio and Debt-to-Equity Ratio, which is consistent with their very high skewness and kurtosis reported in the descriptive statistics. Thus, the visual inspection provides additional evidence of substantial heterogeneity in the firm-level data while not indicating a strong linear association among the explanatory variables.



Table 2 Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Skewness	Kurtosis	Jarque–Bera	Probability	Obs.
Family Holding	24.6292	25.0258	23.7193	0.6531	2.9018	21.4454	0.0000	300
EPS	54.2391	32.1250	74.4817	2.2528	10.7938	1013.051	0.0000	300
Current Ratio	2.9704	1.6068	11.9783	11.4726	136.6053	229710.7	0.0000	300
Debt-to-Equity Ratio	2.2112	0.1742	26.5358	17.1198	295.3238	1082819	0.0000	300
Firm Size	13.5271	13.4506	1.5851	0.5061	3.1332	13.0269	0.0015	300

Author's Computation

Author's Computation

Note: Std. Dev. denotes standard deviation. The Jarque–Bera (JB) statistic tests the null hypothesis that the variable is normally distributed. Probability values below 0.05 indicate rejection of the null hypothesis of normality. The analysis is based on a balanced panel comprising 50 firms observed over 2020–2025, yielding 300 firm-year observations.

Table 3: Correlation Matrix

Variable	Family Holding	EPS	Current Ratio	Debt-to-Equity Ratio	Firm Size
Family Holding	1.0000	0.1621	0.2482	0.0358	−0.2749
EPS	0.1621	1.0000	0.2229	−0.1526	−0.0446
Current Ratio	0.2482	0.2229	1.0000	−0.0123	−0.2003
Debt-to-Equity Ratio	0.0358	−0.1526	−0.0123	1.0000	−0.0046
Firm Size	−0.2749	−0.0446	−0.2003	−0.0046	1.0000

Author's Computation

Note: The table reports Pearson pairwise correlation coefficients. The correlation coefficients range between −1 and +1, with the sign indicating the direction and the magnitude indicating the strength of the linear association between variables. The analysis is based on 300 firm-year observations for 50 firms over 2020–2025.

Table 4: Variance Inflation Factor (VIF)

Variable	R^2 from Auxiliary Regression	VIF
EPS	0.0721	1.078
Current Ratio	0.0864	1.095
Debt-to-Equity Ratio	0.0238	1.024
Firm Size	0.0402	1.042

Author's Computation

Note: VIF denotes the Variance Inflation Factor. The VIF for each explanatory variable is calculated as $1/(1 - R_j^2)$, where R_j^2 is obtained from an auxiliary regression of the respective explanatory variable on the remaining explanatory variables. VIF values below 4 indicate the absence of serious multicollinearity among the explanatory variables, in-line with Hussain & Mukherjee (2025a). The analysis is based on a balanced panel of 50 firms observed over 2020–2025 (300 firm-year observations).

2. Panel Model

Table 4.2.1 presents the panel regression results for Family Holding using Fixed Effects and Two-Way Random Effects estimators. The analysis is based on 50 firms observed over 2020–2025, resulting in 300 firm-year observations.

The Fixed Effects model, EPS has a positive and statistically significant coefficient of 0.0254 ($p < 0.01$). This indicates that, holding other variables and firm- and time-specific effects constant, an increase in EPS is associated with an increase in family ownership. The Current Ratio has a positive coefficient of 0.0196, but the relationship is statistically insignificant. Similarly, the Debt-to-Equity Ratio has a small positive coefficient of 0.0063 and is statistically insignificant. In contrast, Firm Size has a negative and statistically significant coefficient of −8.6352 ($p < 0.01$), indicating that larger firms are associated with lower levels of family ownership. The Fixed Effects model has an R^2 of 0.9508 and an adjusted R^2 of 0.9399, indicating a high proportion of within-panel variation explained by the specification.

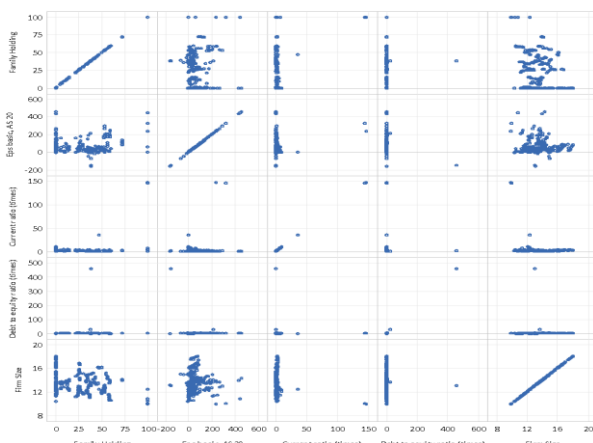


Figure 1: Scatter Plot



The Two-Way Random Effects model produces a similar pattern. EPS has a positive coefficient of 0.0270 ($p < 0.01$), indicating a positive association with family ownership. Current Ratio (0.0482) and Debt-to-Equity Ratio (0.0073) are both positive but statistically insignificant. Firm Size again has a negative and statistically significant coefficient of -6.4303 ($p < 0.01$). Thus, the direction of the estimated relationships is consistent across the Fixed Effects and Random Effects specifications. The Random Effects model reports an R^2 of 0.1827 and an adjusted R^2 of 0.1716, while its F-statistic of 16.4860 ($p < 0.01$) indicates that the explanatory variables are jointly statistically significant.

Table 4.2.2 reports the Hausman specification test to determine whether the Fixed Effects or Random Effects estimator is more appropriate. The joint cross-section and period test produces a χ^2 statistic of 2.0455 with a p-value of 0.7274. Since the p-value is greater than 0.05, We fail to reject the null hypothesis. Therefore, there is no statistical evidence of a systematic difference between the Fixed Effects and Random Effects coefficients, and the Random Effects specification is supported for the analysis.

Table 5: Panel Regression Results for Family Ownership

Variables	Fixed Effects	Two-Way Random Effects
EPS	0.0254*** (0.0081)	0.0270*** (0.0078)
Current Ratio	0.0196 (0.0455)	0.0482 (0.0406)
Debt-to-Equity Ratio	0.0063 (0.0147)	0.0073 (0.0145)
Firm Size	-8.6352*** (1.9912)	-6.4303*** (1.0908)
Constant	139.9992*** (27.0786)	109.9909*** (15.1310)
R^2	0.9508	0.1827
Adjusted R^2	0.9399	0.1716
F-statistic	80.3062***	16.4860***
Observations	300	300

Author's Computation

Notes: The dependent variable is Family Holding. Coefficients are reported with standard errors in parentheses. ***, ** and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The sample comprises 50 firms observed annually from 2020 to 2025, yielding 300 firm-year observations. The Fixed Effects specification includes cross-sectional and period fixed effects, while the Random Effects specification incorporates cross-sectional and period random effects.

Table 6: Hausman Specification Test

Test specification	χ^2 statistic	d.f.	p-value
Cross-section random	4.5819	4	0.3329
Period random	0.6587	4	0.9563
Cross-section and period random	2.0455	4	0.7274

Author's Computation

H_0 : Random Effects is appropriate and consistent

Note: The Hausman test evaluates the null hypothesis that the Random Effects estimator is consistent and that the difference between the Fixed Effects and Random Effects coefficients is not systematic. The statistically insignificant joint test ($\chi^2 = 2.0455$, $p = 0.7274$) indicates that the null hypothesis is not rejected, supporting the use of the Random Effects specification. The period random-effects variance is estimated as zero in the EViews output.

3. Post-Estimation Diagnostics

Table 4.3.1 reports the tests for cross-sectional dependence in the residuals of the selected panel model. The Breusch-Pagan LM statistic is 2754.556 ($p < 0.001$), while the Pesaran Scaled LM statistic is 30.9017 ($p < 0.001$). The Pesaran CD statistic is 16.3869 ($p < 0.001$). Since all three tests yield probability values below the 5% significance level, the null hypothesis of no cross-sectional dependence is rejected. The results therefore indicate the presence of significant cross-sectional dependence among the residuals, indicating that the firms in the sample are not completely independent of one another after accounting for the explanatory variables. In the context of the study, this indicates that the firms are exposed to common market-wide, industry-wide, or macroeconomic influences during the study period. Accordingly, the finding provides a rationale for employing robust standard errors in the subsequent robustness analysis.

Figure 2 presents the in-sample forecast performance of the estimated panel model for Family Holding over the 2020–2025 period. The fitted values broadly capture the movements in the dependent variable, although deviations are observed for several firm-year observations. The model records a Root Mean Squared Error (RMSE) of 5.289 and a Mean Absolute Error (MAE) of 2.282. The Theil Inequality Coefficient is 0.078, with a zero bias proportion and a relatively low variance proportion of 0.026, indicating no systematic forecast bias and a limited contribution of variance differences to forecast error. The covariance proportion accounts for 0.975 of the error decomposition. Given the presence of zero values in Family Holding, the conventional MAPE is unavailable, while the symmetric MAPE (sMAPE) of 72.970% should be interpreted cautiously. Overall, the figure provides supplementary evidence on the model's in-sample fit rather

than an assessment of out-of-sample predictive performance.

Table 7: Residual Cross-Sectional Dependence Test

Test	Statistic	d.f.	p-value
Breusch–Pagan LM	2754.556	1225	<0.001
Pesaran Scaled LM	30.9017	—	<0.001
Pesaran CD	16.3869	—	<0.001

Author's Computation

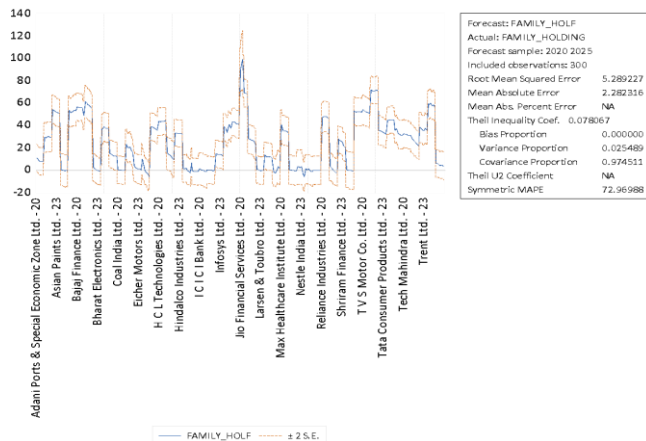


Figure 2: In-Sample Forecast Performance of Family Holding, 2020–2025

Author's Computation

Note: The figure presents the in-sample fitted values and ± 2 standard-error bands for Family Holding over 2020–2025, based on 300 firm-year observations. RMSE, MAE, and Theil inequality statistics are reported as measures of forecast performance. The conventional MAPE is unavailable due to zero values in the dependent variable.

4. Robustness Test

Table 4.4.1 compares the baseline Two-Way Random Effects model with the same specification estimated using cross-section-clustered (White period) robust standard errors. The purpose is to examine whether the estimated relationships remain stable when the standard errors are adjusted for heteroskedasticity and within-firm dependence.

The robustness results show that the coefficient estimates remain unchanged across the two specifications. This indicates that the underlying estimated relationships are stable; the principal change occurs in the standard errors and consequently in the statistical significance of the coefficients.

EPS retains a positive coefficient of 0.0270 in both specifications. However, its standard error increases from 0.0078 to 0.0159 after applying the robust correction. Consequently, the statistical significance of EPS declines

from the 1% level in the conventional model to the 10% level ($p = 0.0964$) in the robust specification. Thus, the results provide evidence of a positive but relatively weak association between EPS and Family Holding.

Current Ratio remains positive, with a coefficient of 0.0482 in both specifications. Its robust standard error increases slightly from 0.0406 to 0.0450, while the relationship remains statistically insignificant. Therefore, the robustness analysis does not provide sufficient evidence of a systematic relationship between liquidity and Family Holding.

The Debt-to-Equity Ratio also retains its positive coefficient of 0.0073. Although its robust standard error changes from 0.0145 to 0.0059, the coefficient remains statistically insignificant ($p = 0.2217$). Hence, the evidence does not establish a statistically significant relationship between financial leverage and Family Holding.

Firm Size continues to exhibit a negative relationship with Family Holding, with a coefficient of -6.4303 in both specifications. Its robust standard error increases from 1.0908 to 2.7302, resulting in a p-value of 0.0226. The relationship therefore remains statistically significant at the 5% level, demonstrating that the negative association between firm size and Family Holding persists after the robust correction.

Therefore, the robustness analysis indicates that the direction and magnitude of the estimated coefficients remain unchanged after employing cross-section-clustered robust standard errors. However, the statistical significance of EPS becomes weaker, changing from the 1% level to the 10% level, whereas Firm Size remains negatively and significantly associated with Family Holding at the 5% level. Current Ratio and Debt-to-Equity Ratio remain statistically insignificant. These results indicate that the principal coefficient patterns are stable, although the evidence for the positive EPS–Family Holding relationship is sensitive to the use of robust standard errors.

Table 8: Robustness Check Using Cross-Section-Clustered Standard Errors

Variables	Two-Way Random Effects	Robust Two-Way Random Effects
EPS	0.0270*** (0.0078)	0.0270* (0.0159)
Current Ratio	0.0482 (0.0406)	0.0482 (0.0450)
Debt-to-Equity Ratio	0.0073 (0.0145)	0.0073 (0.0059)
Firm Size	-6.4303^{***} (1.0908)	-6.4303^{***} (2.7302)
Constant	109.9909*** (15.1310)	109.9909*** (37.6941)
R ²	0.1827	0.1827
Adjusted R ²	0.1716	0.1716
Observations	300	300
Firms	50	50



Author's Computation

Notes: The dependent variable is Family Holding. The baseline specification is a two-way Random Effects model. The robustness specification employs cross-section-clustered (White period) standard errors, which allow for heteroskedasticity and within-firm dependence. Coefficients are reported with standard errors in parentheses. ***, ** and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The sample comprises 50 firms observed annually from 2020 to 2025, yielding 300 firm-year observations.

V. CONCLUSION AND LIMITATION

1. Conclusion

This study examines the association of earnings performance, liquidity, leverage, and firm size with family ownership among 50 firms observed from 2020 to 2025. The findings indicate that the explanatory variables do not exhibit uniform relationships with Family Holding: EPS is positively associated with Family Holding, while Firm Size is negatively associated; Current Ratio and Debt-to-Equity Ratio are positive but statistically insignificant. The robustness analysis preserves the coefficient signs, although the evidence for EPS becomes weaker, while Firm Size remains statistically significant and the other two variables remain insignificant. The positive EPS coefficient suggests that firms with stronger earnings may provide families with greater incentives to retain ownership because of financial returns, wealth preservation, and continued influence. This interpretation is consistent with alignment and stewardship perspectives and is directionally supported by Elgiziry and Moussa (2022), who reported positive associations between family involvement in ownership, profitability, and firm value, as well as evidence from Indonesian listed firms linking family ownership with better corporate performance (Family, Institutional Investors Ownerships and Corporate Performance, n.d.). However, after applying cross-section-clustered robust standard errors, the EPS p-value increases to 0.0964, indicating a positive but relatively weak association rather than robust evidence at the 5% level. The result should therefore be interpreted as an association rather than causation, as family ownership may itself influence managerial decisions, dividend policy, risk-taking, and reporting practices. Firm Size exhibits a negative and statistically significant coefficient in both specifications, remaining significant at the 5% level with a coefficient of -6.4303 . This suggests that larger firms tend to have lower family ownership, potentially because expansion increases the need for professional management, specialized skills, external financing, and complex governance arrangements, which may reduce the relative role of family ownership. This interpretation is consistent with (Lwango et al., 2017), who found that the positive relationship between active family influence and

profitability was negatively moderated by firm size and age, indicating greater importance of professionalization and external resources as firms grow. The possibility of a nonlinear relationship is also supported by (Ramalho et al., 2018) and research on Italian family firms, which suggests that family involvement and firm growth may vary across firm-size categories and potentially follow an inverted U-shaped pattern. Current Ratio is positive but statistically insignificant, indicating insufficient evidence of a systematic relationship between liquidity and Family Holding. Although greater liquidity may provide financial flexibility and resilience, excess liquidity may also reflect inefficient asset utilization or idle working capital, potentially offsetting opposing effects. This result is consistent with mixed evidence, as (Abdullah et al., 2022) reported a negative relationship between family ownership and liquidity, while other studies identify liquidity as a factor influencing capital-structure decisions in family firms. The highly skewed distribution of Current Ratio further suggests that extreme observations may affect estimation precision. Similarly, Debt-to-Equity Ratio has a positive but statistically insignificant association with Family Holding. Families may prefer debt financing because it allows firms to obtain capital without issuing shares and diluting family control; however, excessive leverage increases repayment obligations, financial-distress risk, and creditor monitoring, potentially offsetting this control-preservation motive. Prior evidence also indicates that financing relationships vary according to firm characteristics and size, with (Ramalho et al., 2018) providing support for conditional rather than uniform relationships. The significant cross-sectional dependence identified by the Breusch–Pagan LM, Pesaran Scaled LM, and Pesaran CD tests indicates that firms may be exposed to common market, industry, regulatory, or macroeconomic shocks, supporting the use of cross-section-clustered robust standard errors. Thus, the findings suggest that Firm Size has the most stable association with Family Holding, whereas EPS provides weaker evidence and liquidity and leverage remain inconclusive. The results should be interpreted cautiously as conditional associations because factors such as founder status, family generation, family management, board representation, dividend policy, industry, firm age, ownership concentration, and institutional environment are not fully incorporated. The presence of cross-sectional dependence further highlights the importance of accounting for common shocks affecting firms during the study period. Overall, Family Holding appears more closely associated with organizational scale than with short-term liquidity or leverage in the sampled firms, while the roles of profitability, liquidity, and leverage require further investigation using alternative measures and richer governance specifications.

2. Limitations of the Study

The study has several limitations that should be considered when interpreting its findings. Firstly, the analysis is based



on a sample of 50 firms observed over 2020–2025; therefore, the findings may not be generalizable to all family-owned or publicly listed firms. Secondly, Family Holding is examined in relation to a limited set of firm-level financial variables, namely EPS, liquidity, leverage, and Firm Size. Other potentially relevant determinants, including founder status, generation of family ownership, family management, board representation, ownership concentration, dividend policy, firm age, industry characteristics, and institutional factors, are not incorporated into the model. Thirdly, the significant cross-sectional dependence suggests that common market, industry, regulatory, and macroeconomic shocks may influence firms simultaneously, despite the use of robust inference. Finally, the panel analysis establishes associations rather than causal relationships, and potential reverse causality or omitted-variable bias cannot be completely ruled out. Future research could address these limitations by expanding the sample and study period, incorporating governance and generational characteristics, employing alternative measures of financial performance and capital structure, testing nonlinear and interaction effects, and applying dynamic panel methodologies.

REFERENCES

1. Abdullah, A., Hashmi, M. A., & Iqbal, M. S. (2022). Impact of working capital management on firm profitability and liquidity: The moderating role of family ownership. *Accounting Research Journal*, 35(5), 676–697. <https://doi.org/10.1108/ARJ-07-2021-0212>
2. Adu-Lefebvre, M., Davis, J. H., & Gartner, W. B. (2024). Legacy in family business: A systematic literature review and future research agenda. *Family Business Review*, 37(1), 18–59.
3. Agrawal, O. P., & Bansal, P. K. (2020). A critical study on relationship of EPS and stock price. *Materials Today: Proceedings*, 37, 3011–3015. <https://doi.org/10.1016/j.matpr.2020.08.722>
4. Anderson, R. C., & Reeb, D. M. (2003). Founding-family ownership and firm performance: Evidence from the S&P 500. *The Journal of Finance*, 58, 1301–1328.
5. Bertrand, M., & Schoar, A. (2006). The role of family in family firms. *Journal of Economic Perspectives*, 20(2), 73–96.
6. Bouncken, R., & Schmitt, F. (2022). SME family firms and strategic digital transformation: Inverting dualisms related to overconfidence and centralization. *Journal of Small Business Strategy*, 32(3), 1–17.
7. Burkart, M., Panunzi, F., & Shleifer, A. (2003). Family firms. *The Journal of Finance*, 58(5), 2167–2201. <https://doi.org/10.1111/1540-6261.00510>
8. Casson, M. (1999). The economics of the family firm. *Scandinavian Economic History Review*, 47(1), 10–23. <https://doi.org/10.1080/03585522.1999.10419802>
9. Chahal, H., & Sharma, A. K. (2022). Family involvement in ownership, management and firm performance: Evidence from Indian listed companies. *Indian Journal of Corporate Governance*, 15(1), 26–47. <https://doi.org/10.1177/09746862221089719>
10. 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.
11. Cucculelli, M., & Micucci, G. (2008). Family succession and firm performance: Evidence from Italian family firms. *Journal of Corporate Finance*, 14(1), 17–31. <https://doi.org/10.1016/j.jcorpfin.2007.11.001>
12. Demsetz, H., & Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of Corporate Finance*, 7(3), 209–233. [https://doi.org/10.1016/S0929-1199\(01\)00020-7](https://doi.org/10.1016/S0929-1199(01)00020-7)
13. Domańska, A., Hernández-Linares, R., Zajkowski, R., & Żukowska, B. (2024). Family firm entrepreneurship and sustainability initiatives: Women as corporate change agents. *Business Ethics, the Environment & Responsibility*, 33, 1–24.
14. Dyer, W. G. (2006). Examining the “family effect” on firm performance. *Family Business Review*, 29(4), 253–273.
15. Elgiziry, K., & Moussa, A. A. (2022). Does family involvement in ownership affect profitability and value of Egyptian corporations? *The Academic Journal of Contemporary Commercial Research*, 2(1).
16. Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics*, 65(3), 365–395.
17. Forés, B., Fernández-Yáñez, J. M., & Puig-Denia, A. (2025). How do family firm ownership and governance structures impact the digitalization of business strategy for sustainability: A catalyst or an obstacle? *Business Ethics, the Environment & Responsibility*, 35(1), 415–431. <https://doi.org/10.1111/beer.12795>
18. Giovannini, R. (2010). Corporate governance, family ownership and performance. *Journal of Management & Governance*, 14(2), 145–166.
19. Gong, X., & Liu, S. (2025). Family firm ownership and corporate innovation performance. *Finance Research Letters*, 80, 107366. <https://doi.org/10.1016/j.frl.2025.107366>
20. Gupta, A., & Nashier, T. (2017). Family ownership and firm performance: Evidence from India. *Quarterly Journal of Finance and Accounting*, 55(3–4), 37–68. <https://www.jstor.org/stable/90016631>
21. Ha, N. M., Ngoc, B., Do, & Ngo, T. T. (2022). The impact of family ownership on firm performance: A study on Vietnam. *Cogent Economics & Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2038417>



22. Hung, B. Q., Nham, N. T. H., & Ha, L. T. (2023). The importance of digitalization in powering environmental innovation performance of European countries. *Journal of Innovation & Knowledge*, 8(1), 100284.
23. Hussain, I., & Mukherjee, T. (2025a). Board characteristics and corporate financial distress: The Indian evidence. *International Journal of Corporate Governance*, 15(2), 127–160. <https://doi.org/10.1504/IJCG.2025.145659>
24. Hussain, I., & Mukherjee, T. (2025b). Does ownership structure affect the likelihood of corporate financial distress? Insights from Indian listed firms. *Global Business Review*. <https://doi.org/10.1177/09721509251394269>
25. James, H. S. (1999). Owner as manager, extended horizons and the family firm. *International Journal of the Economics of Business*, 6(1), 41–55. <https://doi.org/10.1080/13571519984332>
26. La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance*, 54(2), 471–517.
27. Leppäaho, T., & Ritala, P. (2022). Surviving the coronavirus pandemic and beyond: Unlocking family firms' innovation potential across crises. *Journal of Family Business Strategy*, 13(1), 100396.
28. Lwango, A., Coeurderoy, R., & Roche, G. A. G. (2017). Family influence and SME performance under conditions of firm size and age. *Journal of Small Business and Enterprise Development*, 24(3), 629–648. <https://doi.org/10.1108/JSBED-11-2016-0174>
29. Martínez, J. I., Stöhr, B. S., & Quiroga, B. F. (2007). Family ownership and firm performance: Evidence from public companies in Chile. *Family Business Review*, 20(2), 83–94. <https://doi.org/10.1111/j.1741-6248.2007.00087.x>
30. Maury, B. (2006). Family ownership and firm performance: Empirical evidence from Western European corporations. *Journal of Financial Economics*, 12(2), 321–341.
31. Miller, D., Le Breton-Miller, I., Lester, R. H., & Cannella, A. A. (2007). Are family firms really superior performers? *Journal of Corporate Finance*, 13(5), 829–858.
32. Miroshnychenko, I., De Massis, A., Barontini, R., & Testa, F. (2022). Family firms and environmental performance: A meta-analytic review. *Family Business Review*, 35(1), 68–90.
33. Muttakin, M. B., Khan, A., & Subramaniam, N. (2014). Family firms, family generation and performance: Evidence from an emerging economy. *Journal of Accounting in Emerging Economies*, 4(2), 197–219. <https://doi.org/10.1108/JAEE-02-2012-0010>
34. Ramalho, J. J., Rita, R. M., & Da Silva, J. V. (2018). The impact of family ownership on capital structure of firms: Exploring the role of zero-leverage, size, location and the global financial crisis. *International Small Business Journal: Researching Entrepreneurship*, 36(5), 574–604. <https://doi.org/10.1177/0266242617753050>
35. Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737–783.
36. Srivastava, A., & Bhatia, S. (2020). Influence of family ownership and governance on performance: Evidence from India. *Global Business Review*, 23(5), 1135–1153. <https://doi.org/10.1177/0972150919880711>