

Family Involvement And Innovation in Family Business in Indonesia: The Moderating Role of Family Member Composition

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ABSTRACT

In Indonesia, family businesses contribute approximately 25% to Gross Domestic Product (GDP) and operate across various economic sectors, from small and medium enterprises to public companies listed on the Indonesia Stock Exchange. Family firms play a significant role in the Indonesian economy, yet their innovation activities often face challenges related to family control and risk aversion. This study examines the effect of family involvement on firm innovation and the moderating role of family composition. Using panel data from 25 family firms listed on the Indonesia Stock Exchange during 2020–2024, this study analyzes 125 firm-year observations. Family involvement is measured by family ownership, while innovation is represented by R&D intensity. Family composition is classified into controlling owner structures, sibling partnerships, and cousin consortia. Panel data regression and Moderated Regression Analysis (MRA) are used. The results indicate that family involvement negatively and significantly affects firm innovation. However, family composition does not significantly moderate this relationship. These findings support the Socioemotional Wealth perspective, which suggests that family owners tend to prioritize preserving control and socioemotional wealth over investing in innovation.

Keywords: Write Family Involvement, Corporate Innovation, Family Ownership, Family Member Composition, Family Business

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INTRODUCTION

Family businesses are one of the most dominant forms of business organization worldwide and contribute significantly to economic development through job creation, improved social welfare, and long-term business sustainability (Birdthistle & Hales, 2023). In Indonesia, family businesses contribute approximately 25% to Gross Domestic Product (GDP) and operate across various economic sectors, from small and medium enterprises to public companies listed on the Indonesia Stock Exchange. (Kurniawan et al., 2022) . This significant contribution makes family businesses a crucial actor in driving national economic growth. Therefore, understanding the factors influencing the competitiveness and sustainability of family businesses is becoming increasingly important to research.

One of the main factors determining a company's long-term competitiveness is innovation. Innovation enables companies to develop new products, improve operational efficiency, and respond effectively to changes in the business environment, thereby creating a sustainable competitive advantage. (Kurniawan & Mertha, 2016; Rijal et al., 2023) . In an increasingly dynamic business environment, a company's ability to innovate is a crucial factor in maintaining business continuity and improving company performance.

Despite this, the level of innovation in Indonesia remains relatively low. According to the 2023 Global Innovation Index, Indonesia ranks 61st globally. (WIPO, 2023) . Furthermore, the OECD (2024) reported that Indonesia's research and development (R&D) expenditure only reached 0.28% of Gross Domestic Product. This condition indicates that innovation activities in Indonesia still face various limitations despite the increasing need for innovation. In the corporate context, innovation is generally reflected through investment in research and development (R&D) activities aimed at producing new products, processes, or technologies with economic value. (Hermawati, 2020; Shin & Kim, 2010) .

However, investing in innovation is not an easy decision. R&D activities require significant resources, carry a high degree of uncertainty, and produce benefits that generally only become apparent in the long term (Kinanti & Nuzula, 2017; Sumahir et al., 2022) . This makes innovation a risky strategic decision for companies. These challenges are further complicated in family businesses, as business decisions are based not only on economic considerations but also on the interests and goals of the owner's family.

For family businesses, innovation often presents a strategic dilemma. On the one hand, innovation is necessary to maintain the company's competitiveness and ensure business continuity across generations. On the other hand, innovation investments carry risks that can threaten both the company's stability and the family wealth embedded in the business (Bammens et al., 2022; Erdogan et al., 2019; Moriana et al., 2020) . Therefore, family businesses are often faced with the choice between pursuing growth opportunities through innovation or maintaining the family's stability and control over the business.

Table 1. Investment Ratios of Several Family Businesses in Indonesia 2020-2024

Company name	% Family Shares	R&D Investment Ratio				
		2020	2021	2022	2023	2024
AMRT	52.74	0.002026	0.001809	0.001585	0.001436	0.001299
BISI	31	0.034228	0.032467	0.032878	0.039269	0.073723
EMPTY	92.47	0.000118	0.000077	0.000074	0.000092	0.000139
HOCKEY	59.95	0.000015	0.000015	0.000021	0.000019	0.000142

Company name	% Family Shares	R&D Investment Ratio				
		2020	2021	2022	2023	2024
IPOL	29.54	0.0095	0.010198	0.016819	0.015773	0.015345
TSPC	81.65	0.000366	0.000345	0.000379	0.000183	0.00034

Source: Annual Report, 2020-2024

This phenomenon is also evident in family-owned companies listed on the Indonesia Stock Exchange. Based on company annual reports for the 2020–2024 period, there is significant variation in R&D investment across companies with varying levels of family ownership. BISI and IPOL, with family ownership of 31% and 29.54%, respectively, exhibit relatively high R&D investment intensity. Conversely, EMPT and TSPC, with family ownership exceeding 80%, exhibit relatively low R&D investment ratios during the same period. Furthermore, AMRT, with family ownership of 52.74%, exhibits a year-over-year decline in R&D investment. This variation indicates that family involvement can influence corporate decisions regarding innovation investment.

Empirical findings on the relationship between family involvement and innovation remain inconsistent. Some studies have found that family involvement fosters innovation because families have a long-term orientation and a strong commitment to corporate sustainability (Ashwin et al., 2015; De Massis, 2016). Conversely, other studies have found that family involvement hinders innovation because families tend to avoid high-risk investments to maintain control and family wealth (Gong & Liu, 2025; Liu et al., 2016; Sun et al., 2022; Tan et al., 2021). These differing findings suggest that the relationship between family involvement and innovation requires further study.

In addition to the inconsistency of research findings, several limitations warrant attention. First, most previous research was conducted in countries such as China, India, and Taiwan, which have different institutional characteristics from Indonesia (Ashwin et al., 2015; Gong & Liu, 2025). Second, previous research has focused more on financial factors and corporate governance, while internal family characteristics have received relatively little attention. Third, limited research considers family composition as a factor that can explain the heterogeneity of family firm behavior in making innovation decisions.

The relationship between family involvement and innovation can be explained through Socioemotional Wealth Theory (SEW) and Agency Theory. Socioemotional Wealth Theory states that family firms are not only oriented towards achieving economic goals but also strive to maintain socioemotional wealth, including family identity, reputation, control over the firm, and intergenerational business continuity (Gómez-Mejía et al., 2007). In this context, family ownership becomes the primary mechanism that allows families to maintain influence over the firm's strategic decisions. (Chua &

Chrisman, 1999) . The greater the family involvement through stock ownership, the greater the family's concern for protecting the social-emotional wealth it owns (Berrone et al., 2012) .

RESEARCH METHODS

This study uses a quantitative approach with panel data to analyze the effect of family involvement on corporate innovation and the moderating role of family member composition in family firms listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period. The research sample was determined using a purposive sampling technique with the following criteria: (1) family firms listed on the IDX, (2) firms with family ownership and management involvement, (3) firms disclosing research and development (R&D) expenditures, and (4) firms providing complete data during the observation period. Based on these criteria, 25 family firms were selected with a total of 125 firm-year observations. The data used are secondary data sourced from annual reports and company financial reports obtained through the official website of the Indonesia Stock Exchange and the websites of each company.

Data analysis was conducted using descriptive statistics to describe the characteristics of the research variables. Hypothesis testing used panel data regression, while testing the moderating role of family composition was conducted using Moderated Regression Analysis (MRA) using Stata 17 software.

Hypothesis

H₁: Family involvement has a negative effect on corporate innovation.

H₂: Family member composition moderates the relationship between family involvement and firm innovation.

RESULTS AND DISCUSSION

Descriptive Analysis

Analysis was conducted to provide an overview of the characteristics of the research variables. (Sugiyono, 2017). This study uses panel data consisting of 25 family firms listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period, resulting in 125 firm-year observations. Table 2 presents descriptive statistics of all variables used in this study.

Table 3: Descriptive Statistics of Variables

Variables	Obs	Means	Standard deviation	Min	Maximum
y	125	0.0045761	0.0096479	0.000015	0.073723
X	125	60.53952	16.99054	29.54	92.47
z	125	1.64	0.744875	1	3
size	125	24.43806	5.721466	14.38175	31.01303
age	125	38,448	12.93872	16	71

Variables	Obs	Means	Standard deviation	Min	Maximum
lev	125	0.444944	0.2703596	0.016	1.65
road	125	0.0603112	0.1122229	-0.429	0.667

Source: Data processed by researchers, 2026

In this study, firm innovation (Y), as measured by R&D intensity, had a mean value of 0.0045761. This finding indicates that, on average, innovation investment among Indonesian family firms is still relatively low. The maximum value reached 0.073723, while the minimum value was 0.000015, indicating considerable variation in innovation activity across firms. The standard deviation of 0.0096479 indicates a relatively dispersed distribution of innovation investment.

Family involvement (X), as measured by the percentage of family ownership, recorded an average value of 60.53952%. This result indicates that family ownership is highly concentrated within the sampled companies. The maximum ownership level reached 92.47%, while the minimum was 29.54%. The standard deviation of 16.99054 reflects substantial variation in family ownership among these companies.

Family composition (Z) is measured using a categorical variable, where 1 represents a controlling owner, 2 represents a sibling partnership, and 3 represents a cousin consortium. The mean value of 1.64 indicates that most firms in the sample are dominated by controlling owner and sibling partnership structures. The standard deviation of 0.744875 indicates moderate variation in family ownership structures.

Regarding the control variables, company size (Size) has an average value of 24.43806 with a standard deviation of 5.721466, indicating differences in company scale among the sampled companies. Company age (age) recorded an average of 38.448 years, The results indicate that most firms are relatively mature organizations. Leverage (Lev) has an average value of 0.444944, indicating a moderate level of debt utilization. Meanwhile, profitability (ROA) shows an average value of 0.0603112, implying that the sampled firms generate an average return on assets of approximately 6.03%. Overall, descriptive statistics reveal substantial variation in innovation intensity, family ownership, family structure, and firm characteristics, providing a suitable basis for further regression analysis.

Inductive Analysis

Chow Test

The Chow test was used to determine the best model between the General Effects Model and the Fixed Effects Model. If the probability > 0.05 , the General Effects Model was selected, whereas if the probability < 0.05 , the Fixed Effects Model was used and continued with the Hausman test. Using Stata 17, the following results were obtained:

Table 4 Chow Test Results

sigma_u	0.05646628	
sigma_e	0.00433085	
rho	0.99415182	(fraction of variance caused by u _i)
F test that all u _i =0: F(24 , 93) = 12 Pro > F = 0.0000		
Source: Data processed by researchers, 2026		

The probability value is $0.0000 < 0.05$, which means the selected model is the Fixed Effect Model (FEM). Therefore, a Hausman Test is necessary.

Hausman test

The Hausman test is used to select between the Fixed Effects Model and the Random Effects Model. If probability > 0.05 , the Fixed Effects Model is used, whereas if the probability < 0.05 , the Random Effects Model is selected.

Table 5 Hausman Test Results

	= 13.86
Prob > chi 2	= 0.0538

Source: Data processed by researchers, 2026

The probability value is $0.4298 > 0.05$. This means the selected model is a Random Effects Model (REM). Therefore, it is necessary to proceed to the Lagrange Multiplier (LM) test .

Lagrange Multiplier Test

The Lagrange Multiplier Test is used to select between the Random Effects Model (REM) and the Common Effects Model (CEM). If the probability is >0.05 , the CEM is selected, while if it is <0.05 , the REM is used. If the REM is selected, the classical assumption test is not necessary.

Table 6 Lagrange Multiplier Test Results

	Variables	SD = sqrt(Var)
y	0.0000931	0.0096479
e	0.0000188	0.0043308
You	0.0000521	0.007221
Test : Var(u) = 0		
		chibar2 (01) = 81.10
		Prob > chibar2 = 0., 0000

Source: Data processed by researchers, 2026

The probability value is $0.0000 < 0.05$. This means that the selected model is a Random Effect Model (REM), so there is no need to perform a classical assumption test.

Panel Data Regression Test

This study uses panel data regression to examine the effect of family involvement on corporate innovation, combining cross-sectoral and time-series data. Furthermore, Moderated Regression Analysis (MRA) is conducted to assess whether family composition moderates the relationship between family involvement and corporate innovation. Descriptive statistics are also used to summarize the characteristics of the research variables. All analyses were conducted using Stata 17 software.

Table 7: Results of Regression Analysis Test

y	Coefficient	Standard error.	Z	P > z	[95% confidence interval]	
X	- 0.0003958	0.0003958	-3.16	0.002	-0.0006411	-0.0001505
z						
2	-0.0074771	0.012356	-0.61	0.545	-0.0316944	0.0167403
3	-0.0194429	0.0140407	-1.38	0.166	-0.0469621	0.0080764
z#cx						
2	0.0001182	0.0002025	0.58	0.559	-0.0002787	0.0005151
3	0.0003135	0.0002128	1.47	0.141	-0.0001035	0.0007305
size	-0.0002796	0.0002937	-0.95	0.341	-0.0008552	0.000296
age	0.0002638	0.0001303	2.02	0.043	8.31e-06	0.0005193
lev	0.0054658	0.004217	1.30	0.195	-0.0027996	0.0137308
road	0.0012008	0.004319	0.28	0.781	-0.0072642	0.0096658
kons	0.0231215	0.0105614	2.19	0.029	-0.0024215	0.0438215

Source: Data processed by researchers, 2026

The regression results show that family involvement has a negative and significant effect on corporate innovation. The coefficient for family ownership is -0.0003958 (p-value = 0.002), indicating that higher family ownership reduces innovation intensity. This finding supports the argument that family owners tend to be risk-averse and prioritize preserving socioemotional wealth over risky innovation investments.

In contrast, family composition does not have a significant direct effect on innovation. Neither sibling partnerships (p-value = 0.545) nor cousin consortia (p-value = 0.166) differ significantly from the controlling owner structure. Furthermore, the interaction term between family involvement and family composition is insignificant, indicating that family composition does not moderate the relationship between family involvement and innovation. Among the control variables, only firm age shows a positive and significant influence on innovation (p-value = 0.043), while company size, leverage, and profitability are not statistically significant.

Hypothesis Test Results

T-test

Table 8 T -Test Results

y	Coefficient	Standard error.	Z	P > z	[95% confidence interval]	
X	- 0.0003958	0.0003958	-3.16	0.002	-0.0006411	-0.0001505

y	Coefficient	Standard error.	Z	P > z	[95% confidence interval]	
z						
2	-0.0074771	0.012356	-0.61	0.545	-0.0316944	0.0167403
3	-0.0194429	0.0140407	-1.38	0.166	-0.0469621	0.0080764
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road	0.0012008	0.004319	0.28	0.781	-0.0072642	0.0096658
kons	0.0231215	0.0105614	2.19	0.029	-0.0024215	0.0438215

Source: Data processed by researchers, 2026

Based on Table 8, Family Involvement (X) has a negative and significant effect on Corporate Innovation (Y) ($\beta = -0.0003958$; $p = 0.002 < 0.05$), indicating that higher family ownership reduces innovation intensity. However, Family Member Composition (Z) does not have a significant effect on corporate innovation ($p > 0.05$). Furthermore, the interaction term between Family Involvement and Family Member Composition (XZ) is not significant ($p > 0.05$), indicating that Family Member Composition does not moderate the relationship between Family Involvement and Corporate Innovation. Therefore, H1 is accepted, while H2 is rejected.

F-test

Table 9 F Test Results

R-squared:		Observation per group	
In the	= 0.0976	min =	5
Between	= 0.3648	average =	5.0
Overall	= 0.3148	max =	5
		Wald chi2(9) =	20.55
correlation(u _i ,		Prob > chi2 =	0.0148
X)	= 0 (assumed)		

Source: Data processed by researchers, 2026

Based on Table 9, the model fit test shows that the regression model is statistically significant and appropriate for the analysis, as indicated by the Wald chi-square value of 20.55 ($p = 0.0148 < 0.05$). Furthermore, the model explains 31.48% of the variation in firm innovation, as reflected by the overall R-squared value of 0.3148.

Coefficient of Determination Test (R2)

Based on Table 9, the overall R-squared value of 0.3148 indicates that the independent variables included in the model can explain 31.48% of the variation in corporate innovation. Meanwhile, the remaining 68.52% is explained by factors outside the model not examined in this study.

DISCUSSION

Family Engagement and Corporate Innovation

Empirical results show that family involvement, as measured by family ownership, has a negative and significant effect on firm innovation. Higher family ownership reduces innovation intensity among Indonesian family firms. This finding implies that increased family control tends to inhibit investment in research and development (R&D), which serves as a proxy for firm innovation in this study.

These results support the Socioemotional Wealth (SEW) perspective, which argues that family firms pursue not only financial goals but also non-financial goals, such as preserving family control, reputation, identity, and intergenerational continuity (Berrone et al., 2012; Gómez-mejía et al., 2007). Because innovation activities require substantial financial resources, involve high uncertainty, and only generate profits in the long run, family owners often perceive R&D investments as a potential threat to family wealth and control. (Zellweger et al., 2012). As a result, family-controlled firms tend to adopt more conservative strategic decisions and avoid risky innovation projects.

These findings are also consistent with Agency Theory, which states that concentrated ownership allows controlling shareholders to influence corporate decisions according to their own preferences. In family firms, dominant family owners may prioritize wealth preservation and risk reduction over long-term innovative investments. As a result, strategic decisions are often directed toward maintaining organizational stability rather than exploring uncertain innovation opportunities.

Empirical evidence observed among family firms listed on the Indonesia Stock Exchange further supports this argument. Firms with highly concentrated family ownership, such as EMPT and TSPC, exhibit higher R&D investment intensity, relatively low. In contrast, companies with more moderate levels of family ownership, including BISI and IPOL, demonstrated a stronger commitment to innovation investment. These patterns suggest that excessive family control can hinder innovation activities, while a more balanced ownership structure can provide companies with greater flexibility to pursue innovative strategies.

Overall, the results of this study are in line with previous studies that reported a negative relationship between family involvement and innovation. (Gong & Liu, 2025; Sun et al., 2022; Tan et al., 2021). These findings suggest that in the Indonesian context, family ownership serves as a mechanism that inhibits innovation investment due to concerns related to risk exposure and preservation of socio-emotional wealth.

The Moderating Role of Family Member Composition

To address the inconsistencies in previous literature, this study examines whether family member composition moderates the relationship between family involvement and firm innovation. Family member composition is classified into three categories: controlling owner, sibling partnership, and cousin consortium, following the framework developed by Gersick et al., (1997) .

However, empirical results indicate that family composition does not significantly moderate the effect of family involvement on innovation. The interaction terms between family ownership and sibling partnerships, and cousin consortia are statistically insignificant. These findings suggest that the negative effect of family ownership on innovation remains relatively unchanged across family structures.

The absence of a moderating effect suggests that variations in family composition are not sufficient to alter the underlying relationship between family ownership and innovation decisions. Several explanations can explain this finding. First, although formal ownership can evolve from a controlling owner structure to a sibling partnership or cousin consortium, strategic decision-making authority in Indonesian family businesses often remains concentrated in the hands of the founders or senior family members. (Teofilus et al., 2022) . Consequently, the dominant preferences and risk perceptions of key family leaders continue to shape corporate decisions regardless of the broader ownership structure.

Second, a broader family ownership structure does not necessarily lead to more professional or rational governance practices. Instead, the involvement of multiple family branches can increase internal conflict and create agency problems among family members (Villalonga & Amit, 2020) . Such conditions can encourage companies to adopt conservative strategies aimed at maintaining family harmony and minimizing conflict, rather than increasing investment in risky innovation projects.

From a SEW perspective, the desire to protect family control and preserve socioemotional wealth appears to persist regardless of whether the firm is controlled by a sole proprietor, siblings, or cousins. Consequently, family structure alone is not enough to weaken or strengthen the negative impact of family ownership on innovation activities.

CONCLUSION

This study demonstrates that family involvement, as measured by family ownership, has a significant negative effect on innovation in family firms in Indonesia. The findings indicate that the greater the family ownership, the lower the firm's propensity to invest in innovation, particularly in research and development (R&D). Meanwhile, family composition, including controlling owners, sibling partnerships, and cousin consortia, did not moderate this relationship. However, this study has

limitations because innovation is only measured using R&D intensity, and the sample is limited to family firms listed on the Indonesia Stock Exchange during a specific observation period.

Future researchers are advised to examine financial slack as a moderating variable in the relationship between family involvement and corporate innovation. Financial slack, measured by the ratio of cash and cash equivalents to total assets, has the potential to reduce family risk aversion, thereby weakening the negative influence of family involvement on R&D investment. Furthermore, the measurement of family involvement can be expanded beyond share ownership to include family members' involvement on the board of directors and commissioners.

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