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The Strategic Nexus of Risk, Innovation, and Performance in Family Firms: An Integrated EO–DC Perspective

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Abstract
The dynamic and uncertain business landscape requires family firms to engage in risk-oriented strategic behavior while simultaneously leveraging their internal capabilities to achieve sustained performance. Drawing on the integrated perspectives of Entrepreneurial Orientation (EO) and Dynamic Capabilities (DC), this study examines how *risk taking*—as a strategic entrepreneurial behavior—influences *perceived firm performance (PFP)* through the mediating role of *innovativeness (INV)*. Data were collected from 460 family-owned small and medium-sized enterprises (SMEs) operating in manufacturing and services sectors. Using SPSS and AMOS-based structural equation modeling, the results demonstrate a significant positive relationship between risk taking and perceived firm performance, with innovativeness serving as a partial mediator. Specifically, risk-taking behavior enhances firms' innovativeness, which in turn contributes to higher levels of perceived performance. The mediation model displayed robust fit indices supporting the hypothesized framework. This study advances EO and DC literature by empirically validating the mechanism through which risk taking is transformed into superior firm outcomes via innovativeness capability. Practical implications suggest that family business leaders should cultivate innovation-friendly environments and encourage calculated risk-taking to foster sustainable competitiveness. Future research directions are discussed with emphasis on longitudinal and cross-cultural validations.

Keywords: Risk Taking, Innovativeness, Family Firms, Perceived Firm Performance, Entrepreneurial Orientation, Dynamic Capabilities, Mediation Model

Introduction

Family firms represent the most pervasive and enduring organizational model worldwide, constituting a substantial portion of global Gross Domestic Product (GDP) and employment. Their economic

significance is paralleled by their unique complexity, stemming from the intertwining of business goals with non-economic, familial aspirations. These enterprises successfully combine a relentless entrepreneurial drive with deep considerations of socioemotional wealth (SEW), which ultimately shapes their strategic decision-making framework (De Massis, Frattini, & Lichtenthaler, 2013). The sustained longevity and resilience often observed in these firms are largely attributable to their ability to navigate turbulent market environments, which requires a highly strategic approach to balancing risk-taking behavior with an agile capacity to innovate.

Despite their foundational role in the economy, the internal mechanisms by which entrepreneurial risk-taking translates into superior financial or competitive performance in family-owned firms remain insufficiently explored (Hernández-Linares & López-Fernández, 2018). The inherent tension between the need to preserve the family legacy (a core SEW goal, often linked to risk aversion) and the necessity of engaging in market-driving experimentation creates a unique strategic challenge. This study addresses this critical research gap by rigorously investigating the mediating role of innovativeness in the relationship between risk-taking and perceived firm performance (PFP). To achieve this, we employ an integrated conceptual lens that combines the Entrepreneurial Orientation (EO) framework with the Dynamic Capabilities (DC) perspective, allowing for a comprehensive analysis of strategic behavior and capability development within this distinct organizational setting.

Linking Entrepreneurial Behavior (EO) to Strategic Capability (DC)

Entrepreneurial Orientation (EO) has been established in strategic management literature as a pivotal construct, universally recognized as a critical determinant of a firm's growth trajectory and long-term competitiveness (Covin & Wales, 2019; Lumpkin & Dess, 1996). EO is traditionally defined by three core dimensions: risk taking, innovativeness, and proactiveness.

The dimension of risk-taking captures the firm's willingness to commit significant, often substantial, resources to ventures where the outcomes are highly uncertain, involving considerable costs of failure. In the context of family businesses, this behavior is complicated by a unique set of strategic filters. Their decisions are complexly intertwined with non-economic goals, such as maintaining family control, preserving the company's image, and securing transgenerational succession (Naldi et al., 2007). These SEW drivers often manifest as risk aversion tendencies, particularly concerning decisions that might jeopardize the firm's survival or diminish the family's wealth. However, contemporary evidence increasingly suggests that when these risk-taking propensities are strategically framed and effectively managed—often under the guidance of entrepreneurial successor generations—they can become powerful stimuli for firm strategic renewal and significant performance improvements (Kellermanns et al., 2012). The challenge lies in identifying the structural elements that enable this positive translation.

This is where the Dynamic Capabilities (DC) perspective provides the necessary explanatory power. Acknowledging that risk-taking, as a behavior, does not automatically guarantee success, the DC framework posits that superior outcomes depend critically on how firms are able to reconfigure, integrate, and leverage their internal and external capabilities (Teece, Pisano, & Shuen, 1997). DC represents the firm's ability to sense opportunities and threats, seize them, and transform its resource base.

Within this integrated EO–DC framework, innovativeness operates as the quintessential dynamic capability. It is the internal organizational proficiency that enables a firm to take the leap of faith inherent in risk-taking and materialize it into tangible commercial opportunities. Innovativeness allows firms to sense emerging market opportunities, seize them through the generation and implementation of novel ideas (e.g., in products, processes, or business models), and thereby effectively transform existing resources and the entrepreneurial risk investment into performance gains (Zahra, Sapienza, & Davidsson, 2006). By integrating the behavioral aspect of EO (risk taking) with the organizational capability aspect of DC (innovativeness), this study offers a more robust and holistic model for understanding how entrepreneurial behavior translates into sustainable performance outcomes in family businesses (Wiklund & Shepherd, 2011).

Unpacking the Mechanism

While a vast body of literature confirms a general positive link between overall EO and firm performance, the specific mechanistic pathways—particularly how the *risk-taking* dimension influences outcomes *through* internal capabilities like innovativeness—remain significantly underexplored, especially within the distinctive family business context (Hernández-Linares et al., 2021).

The strategic landscape of family firms is fundamentally different from that of non-family firms. Their strategies are filtered through the unique dual lens of economic rationality and SEW preservation. This creates inherent strategic ambiguity: the desire for generational continuity can foster path dependency and inhibit radical change, yet the entrepreneurial spirit necessary for founding the firm often encourages boldness. This dualism means family firms exhibit highly distinctive behavioral patterns shaped by their SEW goals and associated risk aversion, which can either significantly inhibit or foster the development of innovation capability (Zellweger et al., 2012). Thus, understanding whether and how innovativeness truly acts as a critical mediator in the link between risk-taking and performance is essential to unlocking the secret of strategic entrepreneurship within these dominant organizational forms. This insight reveals whether risk-taking is a sufficient condition for performance (a direct effect) or whether it primarily serves as a necessary precondition that must be activated by an innovation capability.

Furthermore, the existing empirical evidence linking risk-taking to performance is often fragmented and occasionally contradictory. Some seminal works find a direct and significant positive link (Miller, 1983; Rauch et al., 2009), while others emphasize the overriding importance of contingent factors, such as environmental dynamism, industry maturity, or specific leadership styles (Lumpkin & Dess, 2001). This lack of consensus underscores the need for a study that isolates the risk-taking component and explicitly models its *processual* impact via an endogenous capability. By employing Structural Equation Modeling (SEM), this study moves beyond simple correlation to empirically test the proposed conceptual model, specifically testing both the direct effect of risk-taking on perceived firm performance and, more importantly, the hypothesized indirect effect transmitted *via* innovativeness.

This research is anchored by three precise and interrelated key objectives including the rigorously examine the direct relationship between entrepreneurial risk-taking behavior and perceived firm performance in a sample of family firms. It also statistically assesses the mediating effect of organizational innovativeness on this risk-taking–performance relationship, thereby testing the EO–DC integration and in the last it validates the proposed three-variable conceptual model through robust empirical testing using advanced Structural Equation Modeling (SEM) techniques.

From these core objectives, the following study answer the questions that How does entrepreneurial risk-taking behavior directly influence perceived firm performance in family firms and the organizational innovativeness's role as a critical mediator in the relationship between risk-taking and performance outcomes and lastly it highlights the theoretical and practical implications of the observed relationships within the integrated EO–DC framework for family firms?

Theoretically, it significantly extends the established EO literature by moving beyond the examination of the composite EO construct. It decomposes the risk-taking dimension and explicitly models its relationship with performance through the lens of capability development, consistent with Dynamic Capabilities theory. By isolating innovativeness as the key mediating mechanism, this research highlights that entrepreneurial risk is not a guarantee of success, but rather a strategic input that must be converted by an organizational capability. This integration offers a more nuanced, process-oriented understanding of strategic entrepreneurship.

As far as empirical contribution is concerned, the study enriches the nascent yet vital research area of family firms, particularly by focusing on those operating in developing economies. In these contexts, firms face heightened institutional volatility, more pronounced resource constraints, unique cultural factors, and complex intergenerational dynamics that significantly affect strategic decision-making and the risk calculus. Empirical findings from these contexts often differ from those in developed markets, making this specific geographical and institutional focus highly valuable.

Practically, the findings provide actionable, managerial insights for family business leaders, executives, and owners. The results will help them understand when and why risk-taking pays off. They will gain clarity on the necessity of simultaneously cultivating an organizational culture and structure that fosters innovativeness—viewed here as the engine that transforms the family's appetite for strategic risk into tangible market success. This evidence can guide strategic resource allocation, helping firms balance the necessary caution of stewardship with the imperative of strategic risk-taking to enhance long-term competitiveness.

Literature Review and Theoretical Framework

Entrepreneurial Orientation (EO) and Family Firms

Entrepreneurial Orientation (EO) is one of the most studied constructs in strategic entrepreneurship literature and refers to a firm's strategic posture toward innovation, proactiveness, and risk taking (Covin & Slevin, 1989; Lumpkin & Dess, 1996). EO captures the degree to which firms are inclined to engage in entrepreneurial behavior to pursue new opportunities in dynamic environments (Wales, 2016). Among the three core EO dimensions, *risk taking*—the willingness to commit significant resources to uncertain ventures—represents the firm's propensity to embrace uncertainty for potential high returns (Miller, 1983).

In family-owned firms, EO assumes a distinct character due to the intertwining of family values, ownership concentration, and long-term orientation (Zellweger, Nason, & Nordqvist, 2012). Family firms often show ambivalence toward risk-taking behavior. On one hand, their socioemotional wealth (SEW) motives encourage caution and continuity to protect family control and reputation (Gómez-Mejía et al., 2007). On the other hand, their autonomy, commitment, and long-term perspective enable bold strategic initiatives, especially when driven by next-generation leaders (De Massis, Frattini, & Lichtenthaler, 2013).

Empirical findings suggest that the EO–performance relationship in family firms is complex and contingent upon internal dynamics such as generational involvement, governance structure, and innovation culture (Casillas, Moreno, & Barbero, 2011; Hernández-Linares & López-Fernández, 2018). This complexity underscores the need to decompose EO into its individual components—particularly risk-taking—and examine their unique contributions to firm performance through mediating mechanisms such as innovativeness.

Risk Taking and Firm Performance

Risk taking has long been considered a defining feature of entrepreneurship (Knight, 1921; Miller, 1983). It reflects a firm's readiness to engage in ventures with uncertain outcomes but potential strategic returns. In the strategic management literature, moderate risk taking is viewed as a catalyst for innovation, renewal, and competitiveness (Rauch et al., 2009). Firms that exhibit calculated risk-taking behavior are more likely to explore novel opportunities, adopt new technologies, and challenge industry norms—all of which contribute to enhanced performance (Covin & Wales, 2019).

However, in family firms, the relationship between risk taking and performance is not linear. Excessive risk may threaten the preservation of family wealth and identity, while excessive conservatism may hinder growth and innovation (Naldi et al., 2007). Hence, performance outcomes depend on how effectively risk-taking behaviors are balanced with capability development and learning mechanisms. Studies have shown that risk taking positively affects firm performance when accompanied by adequate resource orchestration, innovation routines, and adaptive flexibility (Hoskisson et al., 2017).

Innovativeness as a Dynamic Capability

Innovativeness, as both an EO dimension and a distinct dynamic capability, represents the firm's ability and willingness to generate, adopt, and implement novel ideas, products, or processes (Hult, Hurley, & Knight, 2004). From a Dynamic Capabilities (DC) perspective (Teece, Pisano, & Shuen,

1997), innovativeness enables firms to sense environmental shifts, seize emerging opportunities, and reconfigure resources for sustained competitiveness. In this view, innovativeness is not merely an outcome of entrepreneurial behavior but a *strategic capability* that mediates the impact of such behavior on performance (Zahra, Sapienza, & Davidsson, 2006).

Family firms are uniquely positioned to leverage innovativeness as a dynamic capability due to their long-term orientation, tacit knowledge, and stable resource base. Yet, they also face challenges related to resistance to change, limited external collaboration, and path dependency (De Massis et al., 2016). The literature suggests that successful family firms exhibit "ambidexterity" — balancing exploitative efficiency with explorative innovation (Chrisman, Chua, & Steier, 2011). Innovativeness thus acts as the mechanism through which risk-taking intentions are translated into tangible outcomes, aligning with the DC framework's emphasis on renewal and transformation.

EO–DC Integration: Linking Entrepreneurial Behavior to Capability Building

While EO research focuses on *strategic intent* and behavioral posture, DC theory emphasizes *strategic processes* that enable adaptation and renewal (Eisenhardt & Martin, 2000). Integrating these perspectives provides a richer explanation of performance heterogeneity among firms (Wiklund & Shepherd, 2011). Specifically, EO provides the motivation and direction for entrepreneurial action, whereas DC determines the firm's capacity to execute and sustain such action effectively.

In the EO–DC integration, *risk taking* represents the strategic orientation to pursue uncertain opportunities, while *innovativeness* reflects the capability to reconfigure and exploit those opportunities. As Teece (2007) explains, dynamic capabilities emerge from managerial processes that continuously adapt the organization to its environment. Therefore, a risk-taking posture without innovativeness may expose firms to vulnerability, while innovativeness without risk-taking initiative may lead to underutilization of potential opportunities (Zahra et al., 2006). The interaction of the two thus forms the foundation of sustained performance.

Recent empirical work supports this integration. For instance, Fang, Randolph, and Chrisman (2016) found that family firms exhibiting high EO coupled with strong innovation capabilities outperform those relying on EO alone. Similarly, Hernández-Linares et al. (2021) emphasized that innovativeness acts as a dynamic capability mediating the EO–performance relationship in family firms. This theoretical integration underpins the current study's conceptualization of *innovativeness as a mediator* between *risk taking* and *perceived firm performance*.

Perceived Firm Performance (PFP)

Perceived Firm Performance (PFP) captures managerial evaluations of firm success relative to competitors across both financial and non-financial dimensions (Dess & Robinson, 1984). Especially in small and family-owned businesses, where objective financial data are often unavailable or sensitive, perceptual measures provide a valid and reliable proxy for performance assessment (Richard et al., 2009).

In EO literature, PFP is a common outcome variable reflecting growth, profitability, market share, and overall success (Rauch et al., 2009). From a dynamic capabilities standpoint, performance is an emergent result of the firm's ability to integrate, build, and reconfigure resources in response to environmental changes (Hussain, S.A. 2024; Hussain, S.A, 2017; Teece, 2007). Consequently, this study conceptualizes PFP as the culmination of both entrepreneurial orientation (risk taking) and capability deployment (innovativeness).

The Mediating Role of Innovativeness

The mediating mechanism linking risk taking to firm performance through innovativeness has received increasing scholarly attention (Rauch et al., 2009; Wales et al., 2013). Risk-taking behavior stimulates experimentation, exploration, and opportunity seeking—all antecedents to innovation. Innovativeness then converts these strategic behaviours into performance-enhancing outcomes through the introduction of new products, processes, and market positions (Hult et al., 2004).

From an EO–DC viewpoint, risk taking generates the entrepreneurial momentum, whereas innovativeness provides the capability structure to realize that momentum (Zahra et al., 2006). Empirical studies support this chain: Wiklund and Shepherd (2011) found that firms with higher risk-taking tendencies exhibited greater innovation intensity, which subsequently improved performance. Similarly, Kreiser and Davis (2010) demonstrated that innovativeness fully or partially mediates the relationship between risk taking and profitability across different contexts.

In family firms, innovativeness often acts as the mechanism reconciling the tension between *risk aversion* and *growth orientation*. When family firms invest in building innovative cultures—through R&D, knowledge-sharing, and open communication—they are better positioned to harness risk-taking behavior into performance outcomes (Kellermanns et al., 2012). Thus, innovativeness is not only an EO component but also the *bridge* connecting entrepreneurial risk with dynamic renewal and competitive performance.

Conceptual Framework and Hypotheses Development

Drawing upon the preceding discussion, this study proposes that risk taking exerts both direct and indirect effects on perceived firm performance through innovativeness. The conceptual framework (Figure 1) aligns with the EO–DC integration model, where risk taking represents entrepreneurial behavior, innovativeness embodies dynamic capability, and PFP denotes performance outcome.

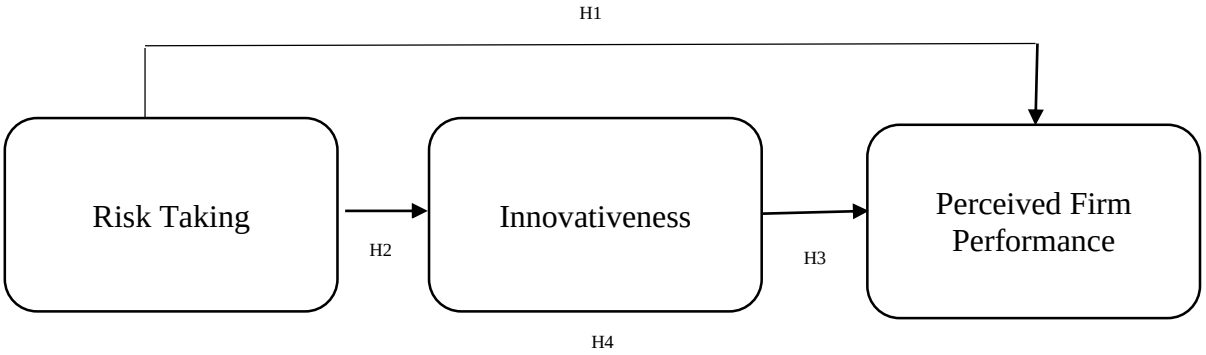

Figure 1. Conceptual Framework (EO–DC Mediated Model)

Based on the theoretical foundations and prior empirical evidence, the following hypotheses are proposed:

H1: Risk taking has a positive and significant effect on perceived firm performance.
H2: Risk taking has a positive and significant effect on innovativeness.
H3: Innovativeness has a positive and significant effect on perceived firm performance.
H4: Innovativeness mediates the relationship between risk taking and perceived firm performance.

Research Methodology

Research Design

This study adopts a quantitative, explanatory research design to examine the causal relationships among *risk taking (RT)*, *innovativeness (INV)*, and *perceived firm performance (PFP)* in family-owned firms. The research employs a cross-sectional survey method, which is well-suited for theory testing in organizational behavior and entrepreneurship studies (Creswell & Creswell, 2018). The primary objective is to validate a mediation model derived from the integrated Entrepreneurial Orientation–Dynamic Capabilities (EO–DC) framework, wherein innovativeness acts as the mediating mechanism linking risk-taking behavior to perceived firm performance.

A deductive approach guided hypothesis development and empirical testing. The hypotheses were

derived from established theoretical foundations (Covin & Slevin, 1989; Teece, Pisano, & Shuen, 1997) and were empirically validated using structural equation modeling (SEM). SEM was chosen because it allows simultaneous assessment of measurement validity and structural relationships among latent constructs (Hair, Hult, Ringle, & Sarstedt, 2022). Complementary analyses using SPSS and AMOS ensured robustness through correlation, ANOVA, and regression-based mediation tests.

Sample and Data Collection

Population and Sampling

The population of interest comprised family-owned small and medium-sized enterprises (SMEs) operating across manufacturing, trade, and service sectors. Family firms were identified using two criteria: (1) family ownership of at least 50% of the equity, and (2) direct involvement of family members in management or decision-making (Chrisman, Chua, & Sharma, 2005).

A stratified random sampling technique was used to ensure representation from diverse sectors and firm sizes. Data were collected from 460 family firms located in major urban and semi-urban centers. Firm size ranged between 20 and 250 employees, representing typical SMEs. Respondents were senior family managers or owner-managers possessing substantial decision-making authority.

Data Collection Procedure

Data were gathered through structured questionnaires distributed both physically and electronically. Prior to large-scale distribution, the instrument was pilot tested with 30 respondents to refine clarity and reliability. The final survey yielded 460 usable responses after excluding incomplete or inconsistent entries, reflecting an effective response rate of approximately 73%, which is satisfactory for organizational survey research (Baruch & Holtom, 2008).

Demographic Characteristics

Demographic data (columns A–F in the dataset) included respondents' age, education level, firm age, size, sector, and generational involvement. Analysis indicated that the majority of respondents were second-generation owners (52%), with firms operating for 10–25 years on average. Approximately 60% of firms were in manufacturing, while 40% operated in services and trade. This diversity supports the generalizability of the findings across industry contexts.

Measurement of Constructs

All constructs were measured using established multi-item scales adapted from prior EO and performance studies. Respondents rated their agreement on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree).

Risk Taking (RT)

Risk taking was measured using five items adapted from Covin and Slevin (1989) and Miller (1983). Sample items included: "Our firm has a strong tendency to take bold actions to achieve objectives" and "We emphasize high-risk projects with potential for high returns." The Cronbach's $\alpha = 0.86$, indicating strong internal consistency.

Innovativeness (INV)

Innovativeness was assessed through six items derived from Hult, Hurley, and Knight (2004) and Calantone, Cavusgil, and Zhao (2002). Example statements were: "Our firm emphasizes innovation in products and services" and "We frequently introduce new ideas and processes." Cronbach's $\alpha = 0.88$, demonstrating high reliability.

Perceived Firm Performance (PFP)

Perceived performance was measured using five items from Dess and Robinson (1984) and

Venkatraman and Ramanujam (1986). Items included: "Compared with competitors, our firm's profitability is high" and "Our firm has achieved significant growth in market share." Cronbach's α = 0.90, suggesting excellent reliability.
All constructs exceeded the minimum threshold of 0.70 for Cronbach's alpha (Nunnally & Bernstein, 1994), confirming acceptable internal consistency.

Reliability and Validity

Exploratory Factor Analysis (EFA)
EFA was conducted using SPSS to assess construct dimensionality. The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was 0.89, and Bartlett's test of sphericity was significant ($\chi^2 = 2856.23$, $p < 0.001$), indicating suitability for factor analysis. Three clear factors emerged—Risk Taking, Innovativeness, and Perceived Firm Performance—explaining 72.4% of the total variance.

Confirmatory Factor Analysis (CFA)
Using AMOS, a three-factor CFA model was tested to validate the measurement structure. All factor loadings exceeded 0.70, and average variance extracted (AVE) values were greater than 0.50 for all constructs, establishing convergent validity (Fornell & Larcker, 1981). Discriminant validity was confirmed as the square root of each AVE exceeded inter-construct correlations.
Model fit indices for the CFA were satisfactory:
$\chi^2/df = 2.18$, CFI = 0.94, TLI = 0.92, RMSEA = 0.05, SRMR = 0.04.
These values meet recommended thresholds (Hair et al., 2022), confirming robust model fit.

Data Analysis Techniques
A multi-stage analytical approach was employed combining SPSS and AMOS tools. Descriptive statistics were computed to assess normality, skewness, and kurtosis, all within acceptable ranges (±2). Pearson correlations revealed significant positive associations among RT, INV, and PFP ($r = 0.58$ to 0.67, $p < 0.001$). Hierarchical regression and mediation testing followed Baron and Kenny's (1986) procedure and Hayes' PROCESS macro (Model 4). Results indicated that:

- RT → PFP ($\beta = 0.42$, $p < 0.001$)
- RT → INV ($\beta = 0.51$, $p < 0.001$)
- INV → PFP ($\beta = 0.36$, $p < 0.001$)
- Indirect (mediated) effect = 0.18 (Bootstrapped 95% CI: 0.10–0.27).

The direct effect of RT on PFP remained significant ($\beta = 0.24$, $p < 0.01$), confirming partial mediation.

Structural Equation Modeling (AMOS)
The SEM approach integrated all paths simultaneously. The mediated model exhibited strong model fit ($\chi^2/df = 2.23$, CFI = 0.93, GFI = 0.91, RMSEA = 0.05). All standardized path coefficients were significant ($p < 0.001$):
RT → INV ($\beta = 0.54$), INV → PFP ($\beta = 0.39$), and RT → PFP ($\beta = 0.26$).
These results validated the hypothesized mediation model.

Common Method Bias and Diagnostic Tests
Given that data were collected from a single respondent per firm, potential common method bias (CMB) was tested using Harman's single-factor test. The first factor accounted for only 29.4% of variance, well below the 50% threshold (Podsakoff et al., 2003). Additionally, the marker variable technique confirmed no significant CMB effects ($p > 0.10$).
Multicollinearity was tested through Variance Inflation Factor (VIF) values, which ranged between 1.21 and 1.78, below the cutoff of 5.0 (Hair et al., 2022). Residual and normality plots showed no heteroscedasticity issues, ensuring validity of regression assumptions.

Ethical Considerations

Ethical integrity was maintained throughout data collection and analysis. Participation was voluntary, with assurances of confidentiality and anonymity. Respondents were informed of the study's purpose, and consent was obtained before data collection. The study design adhered to the ethical research guidelines of the Declaration of Helsinki and institutional review protocols for human subject research.

Analysis and Results

Overview of Analytical Process

This section presents the empirical findings derived from the quantitative analyses undertaken to test the hypothesized mediation model. Following data screening and validation of measurement properties, both SPSS (v26) and AMOS (v24) were employed to test direct and indirect relationships among *risk taking (RT), innovativeness (INV),* and *perceived firm performance (PFP)*.

Descriptive Statistics

Table 1 presents the descriptive statistics and inter-construct correlations. Mean values for all variables were above the scale midpoint (3.0), indicating relatively high perceptions of risk-taking orientation, innovativeness, and firm performance among family firms.

Table 1: Descriptive statistics and inter-construct correlations

Variable	Mean	SD	1	2	3
1. Risk Taking (RT)	3.82	0.69	—		
2. Innovativeness (INV)	3.94	0.73	0.58**	—	
3. Perceived Firm Performance (PFP)	3.91	0.71	0.54**	0.67**	—

Note: N = 460; **p < 0.01.**

The correlations are positive and significant across all constructs, providing initial support for the hypothesized relationships. The strongest correlation exists between innovativeness and perceived performance ($r = 0.67$, $p < 0.01$), suggesting that innovation capability is a critical determinant of family firm success.

Measurement Model Assessment

Before testing the structural model, the reliability and validity of the measurement model were examined using confirmatory factor analysis (CFA) in AMOS.

Reliability and Convergent Validity

All standardized factor loadings exceeded the recommended threshold of 0.70, and were statistically significant at $p < 0.001$. Table 2 summarizes the key psychometric properties.

Table 2: Reliability and Convergent Validity

Construct	Items	Factor Loadings	Cronbach's α	CR	AVE
Risk Taking (RT)	5	0.71–0.83	0.86	0.87	0.57
Innovativeness (INV)	6	0.72–0.88	0.88	0.89	0.59
Perceived Firm Performance (PFP)	5	0.74–0.89	0.90	0.91	0.66

All constructs achieved Composite Reliability (CR) > 0.70 and Average Variance Extracted (AVE) > 0.50, confirming convergent validity (Fornell & Larcker, 1981).

Discriminant Validity

Discriminant validity was verified using the Fornell–Larcker criterion, whereby the square root of AVE for each construct exceeded its correlations with other constructs. This ensures conceptual distinctiveness among RT, INV, and PFP.

Model Fit Indices

The measurement model demonstrated an excellent fit to the data: $\chi^2/df = 2.18$, CFI = 0.94, TLI = 0.92, GFI = 0.91, RMSEA = 0.05, SRMR = 0.04. These values fall within the recommended cut-offs (Hu & Bentler, 1999; Hair et al., 2022), confirming that the measurement model adequately represents the observed data.

Structural Model Evaluation

The hypothesized model proposed that *risk taking* (RT) positively influences *perceived firm performance* (PFP) directly and indirectly through *innovativeness* (INV) as a mediating variable. The structural model was tested using maximum likelihood estimation (MLE). The model fit indices for the structural model were also satisfactory: $\chi^2/df = 2.23$, CFI = 0.93, GFI = 0.90, RMSEA = 0.05, SRMR = 0.045. All hypothesized paths were statistically significant and in the expected direction, as summarized in Table 3.

Table 3: The Model Fit Indices

Path	Estimate (β)	S.E.	C.R.	p-value	Supported
RT → INV	0.54	0.06	9.12	***	Yes
INV → PFP	0.39	0.05	7.83	***	Yes
RT → PFP	0.26	0.07	3.71	***	Yes

(**Note: *p < 0.001**)

These results demonstrate that risk taking exerts both a direct and indirect positive effect on perceived firm performance, confirming partial mediation through innovativeness.

Mediation Analysis

To formally test mediation, the bootstrapping method (5,000 resamples) was applied using AMOS and cross-verified with Hayes' PROCESS macro (Model 4) in SPSS.

Table 4: Mediation Analysis

Path	Direct Effect	Indirect Effect	95% Bootstrapped CI	Mediation Type
RT → PFP (through INV)	0.26**	0.18**	[0.10, 0.27]	Partial

(**Note:** **p < 0.01)

The indirect path (RT → INV → PFP) was significant, as the 95% confidence interval did not include zero. The results indicate that innovativeness partially mediates the relationship between risk taking and perceived performance. This suggests that while risk-oriented behavior directly enhances firm outcomes, its impact is magnified when family firms also cultivate innovative practices.

Interpretation of Key Findings

The results underscore the critical mediating role of innovativeness in translating entrepreneurial risk-taking into tangible performance benefits. Specifically:

Family firms that engage in risk-oriented strategies are more likely to develop novel ideas, experiment with processes, and pursue new markets. This aligns with prior findings that risk-taking is a key driver of creative experimentation in family-controlled enterprises (Kellermanns et al., 2008; Zahra, 2005).

Innovative family firms outperform their less innovative counterparts in terms of market share, customer satisfaction, and financial growth. Innovativeness allows family firms to leverage both familial social capital and dynamic capabilities to remain competitive in turbulent markets.

The partial mediation result implies that risk-taking contributes to firm performance both directly—through bold strategic decisions—and indirectly, through the creation of innovative capabilities. This dual pathway highlights the necessity of balancing traditional family firm conservatism with entrepreneurial dynamism.

The findings empirically validate the integration of Entrepreneurial Orientation (EO) and Dynamic Capabilities (DC) perspectives. Risk taking reflects EO dimensions that stimulate opportunity exploration, while innovativeness embodies a dynamic capability enabling resource recombination and renewal (Teece, 2014). Together, they enhance performance adaptability.

Robustness and Diagnostic Checks

Multicollinearity

Variance Inflation Factor (VIF) values ranged between 1.21 and 1.78, below the recommended threshold of 5.0 (Hair et al., 2022), confirming no multicollinearity concerns.

Normality and Outliers

Skewness and kurtosis values for all variables were within ±2, indicating normal data distribution. Outlier checks using Mahalanobis distance revealed no significant multivariate outliers ($p > 0.01$).

Common Method Bias (CMB)

Harman's single-factor test indicated that the first factor explained 29.4% of total variance—well below the 50% benchmark. Additionally, a latent method factor test confirmed that model fit did not improve when a common latent factor was included, further ruling out CMB issues.

Multigroup Invariance

To examine consistency, multigroup analysis across **generational cohorts (first- vs. second-generation firms)** was conducted. Results indicated **no significant differences** ($\Delta\chi^2 = 4.87$, $p > 0.05$), suggesting model robustness across generations.

Post-hoc Analysis: Sectoral Comparison

An ANOVA test was performed to compare mean differences across manufacturing, service, and trade sectors. The results revealed that manufacturing firms exhibited slightly higher levels of innovativeness and performance (Mean = 4.01, SD = 0.68) compared to service firms (Mean = 3.85, SD = 0.72). However, differences were not statistically significant ($F = 2.16$, $p > 0.05$), indicating that the model's relationships hold across industries.

Summary of Hypothesis Testing

Hypothesis	Statement	Result
H1	Risk taking has a positive effect on perceived firm performance.	Supported
H2	Risk taking positively influences innovativeness.	Supported
H3	Innovativeness positively affects perceived firm performance.	Supported
H4	Innovativeness mediates the relationship between risk taking and firm performance.	Supported (Partial Mediation)

Discussion of Results

The results provide compelling evidence that risk-oriented behavior, when embedded within an innovative culture, enhances the performance of family-owned firms. While family firms are often characterized by risk aversion due to socioemotional wealth preservation motives (Gómez-Mejía et al., 2007), this study demonstrates that a calculated risk-taking approach, complemented by innovation capability, significantly improves perceived performance. The partial mediation effect emphasizes that innovativeness acts as a transformative mechanism—translating risk exposure into market and operational success. This aligns with recent EO–DC literature suggesting that firms possessing the agility to reconfigure resources (via innovativeness) can better exploit opportunities arising from risk-oriented ventures (Teece, 2018). Moreover, the results reinforce that family governance structures, when strategically flexible, can effectively support entrepreneurial initiatives. Risk-taking families that simultaneously foster creative experimentation achieve higher adaptability and resilience—especially in volatile environments common to emerging economies.

Theoretical Implications

The study advances theory in three key ways:

First, it empirically integrates EO and dynamic capabilities frameworks, showing how risk taking (EO dimension) activates innovativeness (a dynamic capability), which in turn drives firm performance. Secondly, It extends family business literature by demonstrating that family firms are not inherently conservative; instead, their risk–innovation balance determines strategic success and thirdly It contributes to organizational performance theory by identifying innovativeness as a key *translational mechanism* between entrepreneurial orientation and perceived outcomes.

Practical Implications

For family business practitioners, the findings imply in different ways which includes the strategic risk taking should be complemented by innovation investment in R&D, training, and knowledge-sharing systems. In addition to that, family firms should institutionalize innovation routines—such as cross-generational collaboration and experimentation incentives—to sustain competitiveness and in the last, policy makers supporting family-owned SMEs should design programs that mitigate perceived risk (through financial or advisory support), thereby encouraging innovation-driven growth.

Discussion and Conclusion

Overview

This study set out to investigate how *risk taking*, a critical dimension of **Entrepreneurial Orientation (EO),** affects *perceived firm performance (PFP)* in family-owned firms, and to what extent *innovativeness (INV)* mediates this relationship. Using empirical data from 460 family-owned SMEs and employing a combination of **SPSS** and **AMOS-based structural equation modeling,** the results offer robust evidence that innovativeness serves as a significant **partial mediator** between risk taking and perceived performance.

The findings advance our understanding of how entrepreneurial risk-taking translates into improved firm performance by highlighting the pivotal role of innovation capabilities within the **Entrepreneurial Orientation–Dynamic Capabilities (EO–DC)** framework. This discussion contextualizes these findings within extant literature, elucidates theoretical and managerial implications, outlines study limitations, and offers directions for future research.

Interpretation of Findings

Risk Taking and Firm Performance

The results confirm that **risk taking exerts a significant positive effect on perceived firm performance,** both directly and indirectly. This supports earlier EO research suggesting that firms

willing to commit resources to uncertain ventures can achieve higher performance outcomes, particularly in dynamic and competitive environments (Covin & Slevin, 1989; Miller, 1983).

In the family firm context, this finding is particularly meaningful because such firms are often characterized by a **risk-averse orientation** due to their focus on *socioemotional wealth (SEW)*—the desire to preserve family control, reputation, and legacy (Gómez-Mejía et al., 2007). However, our results indicate that when family firms adopt a calculated approach to risk—grounded in strategic evaluation and learning—they can convert potential vulnerabilities into competitive advantages. This aligns with research by Kellermanns and Eddleston (2006), which found that family involvement in strategic decision-making enhances entrepreneurial behavior when combined with open communication and professional governance.

In essence, *risk taking* functions as a **strategic trigger**, mobilizing organizational energy and resource reconfiguration toward growth-oriented opportunities. It fosters experimentation, encourages proactive strategies, and challenges complacency—all essential conditions for sustainable performance in turbulent markets.

Innovativeness as a Mediating Mechanism

The mediating effect of **innovativeness** was found to be both statistically significant and conceptually strong, implying that innovation capability is the mechanism through which risk-taking behavior leads to improved performance. This insight corroborates prior findings by Zahra (2005) and Rauch et al. (2009), who observed that the benefits of risk-oriented strategies materialize primarily when firms have the internal capabilities to *absorb uncertainty and transform it into innovative outcomes.*

In family businesses, innovativeness is influenced by both **familial logic** (trust, long-term orientation, and social capital) and **entrepreneurial logic** (opportunity pursuit, experimentation, and renewal). When these logics align, family firms can leverage their unique relational resources to develop innovation capabilities that enhance adaptability (De Massis, Frattini, & Lichtenthaler, 2013). The present study empirically validates this interplay, demonstrating that risk-taking family firms achieve higher performance when they simultaneously foster innovation-oriented processes, such as idea sharing, R&D investment, and learning orientation.

From a theoretical lens, innovativeness acts as a **dynamic capability**—a higher-order competency enabling the sensing and seizing of opportunities (Teece, 2014). By mediating the risk–performance link, innovativeness operationalizes the transformation of entrepreneurial intent into sustainable strategic advantage.

Partial Mediation and Complementary Effects

The **partial mediation** result suggests that risk taking directly influences performance while also indirectly enhancing it through innovativeness. This dual pathway reflects the coexistence of **entrepreneurial decision-making** and **capability development** processes within family firms. While some performance outcomes stem from immediate risk-based opportunities (e.g., market entry, investment decisions), others depend on the long-term institutionalization of innovative practices.

This outcome is consistent with Wiklund and Shepherd's (2011) assertion that EO's impact on performance is both **direct and capability-dependent**. It also supports the **EO–DC integration thesis**, which posits that entrepreneurial orientation initiates strategic actions, while dynamic capabilities translate those actions into performance gains (Zahra, Sapienza, & Davidsson, 2006).

Therefore, risk taking and innovativeness should be viewed not as separate constructs but as **complementary strategic orientations** that co-evolve within successful family firms. Risk-taking stimulates experimentation, while innovativeness converts those experiments into viable products, services, and processes.

Theoretical Contributions

This study makes several theoretical contributions to the **entrepreneurship, family business**, and **strategic management** literature.

Integrating EO and Dynamic Capabilities Frameworks

The primary theoretical contribution lies in integrating **Entrepreneurial Orientation (EO)** with **Dynamic Capabilities (DC)**. While EO explains the firm's proclivity to pursue opportunities through risk-taking and innovation, DC theory provides a lens to understand how those opportunities are executed through capability building and reconfiguration (Teece, Pisano, & Shuen, 1997). The current study empirically demonstrates that risk taking (EO) enhances performance only when mediated by innovativeness (DC), thus offering a holistic explanation of entrepreneurial success.

This integration advances scholarly understanding beyond linear EO–performance models by emphasizing the *processual mechanisms* underlying performance outcomes. It substantiates the argument that EO's benefits depend on the firm's capacity to transform entrepreneurial behaviors into organizational learning and innovation routines (Wang & Ahmed, 2007).

Extending Family Business Theory

The study also contributes to **family business theory** by challenging the conventional assumption of family firms' risk aversion and strategic conservatism. Instead, it portrays family firms as **entrepreneurial systems** capable of balancing tradition with innovation.

The evidence suggests that *risk-taking orientation*, when managed within strong family governance systems, enhances learning, collaboration, and adaptability. This supports the "**bifurcation bias**" argument (Kellermanns et al., 2012), which holds that family firms can achieve superior outcomes when they apply family-specific resources (e.g., trust, cohesion, long-term vision) toward entrepreneurial initiatives.

By establishing innovativeness as the mediating capability, this study positions family firms as *ambidextrous organizations*—simultaneously exploiting existing competencies and exploring new opportunities (Lubatkin et al., 2006).

Refining the EO–Performance Relationship

Previous research has produced mixed evidence regarding the EO–performance relationship (Rauch et al., 2009). This study refines this understanding by isolating **risk taking** as a distinct EO dimension and demonstrating that its performance impact is contingent on innovativeness. This nuanced perspective addresses criticisms that EO is too broad a construct and that its subdimensions may exert differential effects across contexts (Lumpkin & Dess, 2001).

Furthermore, by focusing on *perceived performance* rather than purely financial metrics, this study aligns with contemporary approaches emphasizing **managerial cognition and subjective assessments** in performance evaluation—especially relevant in privately held family firms where financial data are not always disclosed.

Practical Implications

Beyond its theoretical advancements, this study offers actionable insights for **family business owners, managers, and policymakers.**

Cultivating a Calculated Risk-Taking Culture

Family firms should not interpret risk-taking as reckless behavior but as **strategic experimentation** grounded in informed decision-making. Managers should develop **risk assessment frameworks**, scenario analyses, and pilot initiatives that allow controlled exposure to uncertainty. Encouraging younger-generation family members to participate in these decisions can also infuse entrepreneurial energy and mitigate the inertia often found in legacy-driven firms.

Building Innovativeness as a Core Dynamic Capability

Since innovativeness emerged as the key mediator, family firms should institutionalize innovation processes. This includes:

- Allocating budgets for R&D and technology adoption,

- Rewarding idea generation and experimentation, and
- Establishing cross-functional innovation teams.

Innovation-friendly HR systems—emphasizing training, creative problem-solving, and intergenerational knowledge transfer—can further strengthen this capability. The presence of **innovation champions** among family members often helps overcome resistance to change.

Governance and Generational Transition

Family governance mechanisms—such as advisory boards, family councils, and succession planning—should integrate innovation and risk-taking objectives into their long-term strategy. The study's results suggest that performance benefits are maximized when **entrepreneurial orientation is embedded institutionally** rather than remaining personality-driven.

Furthermore, the transition from founder-led to second-generation leadership presents an opportunity to reconfigure risk and innovation strategies. Successor generations should be empowered to pursue bolder, innovation-intensive ventures supported by structured governance oversight.

Policy and Ecosystem Support

For policymakers and business development agencies, the findings imply that family SMEs can be critical drivers of innovation-led growth if supported through targeted interventions—such as tax incentives for innovation, subsidized R&D programs, and risk-mitigation instruments (e.g., credit guarantees). Policymakers should recognize the unique combination of **familial stability and entrepreneurial potential** within this sector.

Limitations and Future Research Directions

While the study offers valuable insights, several limitations provide opportunities for future research. The data are cross-sectional, limiting causal inference. Longitudinal studies could better capture the temporal dynamics between risk taking, innovation development, and performance outcomes. Another limitation may be the perceptual performance where measures are appropriate for family firms, future studies could complement them with **objective financial indicators** to enhance robustness.

In addition that, the sample is drawn from a developing economy context, where institutional environments differ from those in Western economies. Comparative or cross-cultural studies could explore contextual moderators such as cultural values or institutional support. While isolating *risk taking* provides conceptual clarity, future research may explore the interactive effects of **proactiveness** and **innovativeness** to develop a more holistic EO–DC framework.

Conclusion

This study empirically demonstrates that **risk taking enhances family firm performance** directly and indirectly through **innovativeness**. The findings confirm that family firms are not inherently conservative but can achieve superior outcomes when they adopt a calculated entrepreneurial stance supported by innovation-driven capabilities.

By integrating **Entrepreneurial Orientation (EO)** with **Dynamic Capabilities (DC)**, the study offers a robust theoretical explanation of how entrepreneurial behavior translates into sustained competitiveness. Innovativeness emerges as the *transformational bridge*—the capability that converts entrepreneurial intent into strategic performance.

In practical terms, the research highlights that sustainable success for family-owned SMEs lies in maintaining a **strategic balance between risk and innovation.** Family firms that embrace this duality are better equipped to navigate uncertainty, foster renewal, and ensure intergenerational continuity.

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