Vol. 2 No. 4 (2024)
Journal of Social Signs Review
Print ISSN: 3006-4651
Online ISSN: 3006-466X

Journal of Social Signs Review

The Interplay of IPO Capital Allocation, Shareholder Activism, and Innovation Performance: Evidence from Dynamic Panel Data Analysis

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Abstract

This study investigates the dynamic interrelationship between internal capital allocation, shareholder activism, and innovation performance in firms undergoing Initial Public Offerings (IPOs). Resource-based theory and agency theory are the bases from which this study draws inspiration as it utilizes a robust econometric framework of dynamic panel data models and the GMM to analyze 400 U.S.-based firms from 2020-2023. The findings suggest that strategic use of IPO proceeds toward R&D enhances the innovation outcomes to a large extent as captured by elevated R&D intensity. Shareholder activism, however, shows dualistic effects, where it sometimes acts as a catalyst for better governance and sometimes constrains long-term investments in innovation. Financial metrics like Return on Equity and Dividend Payout Ratio have a negative impact on R&D investments and thus bring forth the trade-offs between profitability and innovation. This study contributes to the corporate finance and governance literature by explaining

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Print ISSN: 3006-4651
Online ISSN: 3006-466X

the subtle interplay between IPO capital allocation and external oversight in determining innovation performance. The theoretical, managerial, and policy implications are discussed to encourage sustainable innovation in public firms.

Keywords: Initial Public Offering (IPO), Innovation Performance, Shareholder Activism, Internal Capital Allocation, Dynamic Panel Data, R&D Investment, Corporate Governance and Agency Theory

Introduction

Innovation is a significant engine for economic growth, corporate competitiveness, and technological development. It is the very engine of firm performance in high-tech industries where research and development activities are essential in generating value (Hall, 2010; Hall & Helmers, 2024; Legrand, 2024; Schumpeter, 1939). At the same time, innovation is resource-intensive and involves much uncertainty; financing innovation is one of the most challenging aspects of corporate strategy. This challenge is particularly intense for firms transforming from private to public ownership through an initial public offering. An IPO marks a crucial juncture in a firm's lifecycle, where it gains access to more extensive capital and lessens financial constraints on innovation.

However, going public increases the scrutiny that firms receive and the short-term pressure on performance, which has been known to influence the decisions of their capital allocations (Bernstein, 2015; Zimmerschied, 2024). While the literature emphasizes the need for efficient capital allocation toward innovation, the internal allocation of IPO capital toward long-term innovation goals is underdeveloped. Capital from an IPO can be used to fund high-risk, high-reward innovation projects; however, public market pressures and shareholder demands often force managers to focus on short-term profitability (Bushee, 1998; Fang et al., 2014; Bilal & Tanveer, 2023; Ge et al., 2024; Liu & Suzuki, 2024). This duality creates conflict between the need to invest into innovation and the expectation to receive immediate financial returns.

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Print ISSN: 3006-4651
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Adding to this complexity is the influence of shareholder activism, which has become a significant player in corporate governance. Activist shareholders significantly influence managerial decision-making, demanding more accountability and better financial performance. Shareholder activism can align managerial actions with shareholder interests but may discourage investments in innovation because of the risks and payoffs associated with R&D activities that are inherently delayed (Chuah et al., 2024; Salleh & Sapengin, 2023; Sulehri et al., 2022; Goranova & Ryan, 2014). Conversely, shareholder activism can be a trigger for innovation by promoting accountability and better resource allocation (Brav et al., 2008; Stevelman & Haan, 2020; Huseyin, 2023; Ngo, 2023). The ability of a firm to sustain innovation while facing external pressures will depend on the interaction of shareholder activism with capital allocation decisions post-IPO.

This study focuses on the US economic and regulatory environment as an ideal setting to explore these dynamics. In contrast to emerging markets where financial constraints are more pronounced, the U.S. market offers a well-developed institutional framework and access to diverse funding sources. Yet, even in such an environment, the interplay between IPO capital allocation, innovation, and shareholder activism remains understudied. While prior research has focused on individual aspects of these relationships, such as the impact of IPOs on innovation (Fang et al., 2014) or the effects of shareholder activism on corporate governance (Edmans et al., 2013; Fadzil, 2021; Freund et al., 2024), an integrated analysis is lacking. Thus, this study highlighted the moderating effect of shareholders' activism on the relationship between IPO-internal capital allocation of firms and their innovation performance. Building on insights from agency theory, resource-based views, and innovation financing frameworks, this research expands knowledge about mechanisms through which capital allocation decisions influence the outcomes of innovations in firms going public. The findings help to provide insightful implications for corporate managers, investors, and

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policymakers seeking to balance innovation-driven growth with shareholder accountability demands.

Literature Review and Hypotheses Development

Internal Capital Allocation and Innovation

Effective internal capital allocation is important for fostering corporate innovation, especially in firms going public through an Initial Public Offering (IPO). Resource-based theory, for instance, views the strategic allocation of resources toward innovation as a way to achieve sustained competitive advantage (Abdul-Aziz Ahmad & Jais, 2024; Khan & Ullah, 2020; Barney, 1991). Empirical research has shown that those firms, that emphasize investment in R&D as an allocation of capital, lead in the output of innovations and market value by comparison with peer firms (Hall, 2024; Margolis & Calderon, 2021; Hall & Lerner, 2010). The actual capital allocation process of firms that went public may become pretty complex. Newly issued firms face conflicting pressures - pressure to live up to external investors' expectations and an imperative to invest in highly risky long-term innovation projects (Bushee, 1998). Research suggests that capital allocation sometimes suffers from short-termism in response to public market pressures, thereby curtailing investment in innovation (Bushee, 1998).

On the other hand, IPOs alleviate financial constraints by providing firms with the liquidity necessary to pursue ambitious R&D initiatives (Fang et al., 2014; Wang & Ahmad, 2018; Ge et al., 2024). This duality of the IPO as both an enabler and a potential inhibitor of innovation underscores the importance of understanding the mechanisms through which internal capital allocation affects innovation outcomes.

The Role of IPOs in Financing Innovation

The IPO process radically changes a firm's capital structure and its access to external funding. The influx of capital from public markets allows firms to invest in innovation, especially in high R&D-intensive industries (Aliano et al., 2024;

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Kumar & Gupta, 2023; Brau & Fawcett, 2006). Thus, the availability of external funding will decrease the reliance on internal cash flows and help firms bridge the financial gap associated with innovation (Hall, 2010; Hall, 2024). However, going public also exposes them to increased scrutiny, sometimes conflicting the quest for innovation with financial transparency and short-term payoff demands (Bernstein, 2015). Analysis shows that firms with more intense R&D activities also enjoy higher IPO valuations since investors believe in the long-term prospects of growth through innovations (Chemmanur et al., 2010; Ali et al., 2022; Pinto, 2024). However, the shift to public ownership does dilute managerial autonomy. External stakeholders, especially activist shareholders, play a role in influencing the decisions of the corporation. This poses the question of whether the gains from increased funding are worth the constraints on innovation that result from the dynamics of public markets.

Shareholder Activism and Corporate Governance

Shareholder activism has emerged as a highly influential force in corporate governance, affecting managerial choices in the allocation of resources and strategic focus. Agency theory provides a helpful framework for understanding the two-faced nature of shareholder activism, in which activist shareholders can play a mitigating role in agency problems by making managerial actions respond to shareholder interests, but which also promotes short-term financial performance to the detriment of long-run innovation (Jensen & Meckling, 2019; Lily & Susilawati, 2024). It is argued that shareholder activism affects innovation positively and negatively through various mechanisms. On one hand, activist shareholders can promote efficient resource allocation and better governance, thus creating an environment that fosters innovation (Brav et al., 2008). On the other hand, excessive pressure from shareholders can discourage investments in high-risk, uncertain projects, such as R&D initiatives, thereby hindering innovation (Freund et al., 2024). The subtle interrelation between shareholder activism and

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innovation also means that there is a need for more research into how the latter affects post-IPO capital allocation decisions.

Development of Hypotheses

This research combines the knowledge of corporate finance, innovation strategy, and governance literature to formulate hypotheses related to the link between internal capital allocation, IPOs, innovation, and shareholder activism. The development of these hypotheses is based on both theoretical frameworks and empirical findings, thus aligning with the strict standards of high-impact finance journals.

Impact of Internal Capital Allocation on Innovation Performance

Innovation is inherently resource-intensive and uncertain, and therefore access to sufficient financial resources is a critical determinant of its success (Hall, 2010; Audi & Ali, 2019; Audi et al., 2022; Hall, 2024). An IPO allows firms to generate significant capital, which can be devoted to long-term projects such as R&D. Capital from an IPO relieves financial constraints, which otherwise might cause firms to drop innovation because of resource limitations (Fang et al., 2014; Ge et al., 2024). Resource-based competitive advantage theories highlight those strategic internal resources, including IPO funds, enhance the ability of firms to innovate and maintain market leadership (Barney, 1991). However, public market pressures can challenge newly listed firms' long-term focus because managerial priorities usually shift toward short-term performance metrics (Bushee, 1998; Liu & Suzuki, 2024). These strains notwithstanding, such firms have been observed to experience an elevated pace of patent production, the advancement of technology, and ultimately market competition (Bernstein, 2015). So, it is with the view that this paper stipulates a hypothesis; IPO cash strategically spent on R&D and innovations positively influences firm innovation performance:

H1: Internal capital allocation in IPO firms significantly enhances innovation performance.

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The Moderating Role of Shareholder Activism

Shareholder activism is part of corporate governance and may play a double-edged role in a firm's strategic decisions. Agency theory has argued that shareholder activism can reduce managerial inefficiency by aligning management's actions with those of the shareholders (Jensen & Meckling, 2019). In that sense, activist shareholders may make it easier to allocate available resources to value-enhancing projects (Brau & Fawcett, 2006). The relationship between shareholder activism and innovation is, however complex. Activism may promote accountability and improved governance but could increase pressure on management to provide short-term financial returns at the expense of investment in high-risk, long-term projects such as R&D (Fang et al., 2014). Empirical studies show that over-intervention by shareholders reduces managerial autonomy, thereby potentially stifling innovation and creativity (Goranova & Ryan, 2014)).

On the other hand, constructive and balanced shareholder participation may be a source of innovation catalyst because it promotes better capital allocation and supports long-run value creation (Hill & Snell, 1988; Khaliq, 2024). Therefore, given the contrasting potential, it is worth further researching the moderating effect of shareholder activism on the association between capital allocation and innovation. This study hypothesizes that the nature and extent of shareholder activism can either amplify or dampen the positive effects of internal capital allocation on innovation:

H2: Shareholder activism moderates the relationship between internal capital allocation and innovation performance.

These hypotheses provide a comprehensive framework for examining the interplay between internal capital allocation, IPOs, shareholder activism, and innovation, addressing critical gaps in the existing literature and offering insights for both academic and practical applications.

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Research Methodology

Research Design

The paper applies a quantitative research methodology by panel data analysis to study the relationship between internal capital allocation, innovation performance, and the moderation role of shareholder activism on firms during an Initial Public Offering process (Hoang et al., 2024; Linyu et al., 2024). Using panel data reduces unobserved heterogeneity across firms while allowing temporal dynamics in the data to be captured over the period of study. The research design thus well caters to achieving the objectives, with adequate robustness and reliability for the estimation of causal relationships. The study addresses potential issues of endogeneity, dynamic relationship, and omitted variable bias through techniques of econometric modeling as expected by rigorous methods in high-impact finance journals.

Data Sources and Sample

The dataset is aggregated from multiple credible sources to ensure accuracy and comprehensiveness. IPO data are drawn from Thomson Reuters Eikon and Crunchbase databases, with details on IPO dates, funds raised, and firm characteristics. Financial performance indicators are drawn from Bloomberg Terminal and CompStat, while innovation activity is measured using R&D expenditure data and patent information from the United States Patent and Trademark Office (USPTO) (Sjöbeck et al., 2024). Shareholder activism data is collected from SEC filings and FactSet Shark Watch, where all records of institutional and activist shareholder campaigns are included. It analyzes U.S.-based companies that went public in 2020-2023. To ensure comparability, state-owned enterprises and finance sector companies, like banking and insurance companies, have been excluded because their capital and regulation environments are different. All such companies with missing data related to the key variables

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under investigation are also excluded. The final sample consists of 400 firms drawn from a diversity of industries and firm sizes, making the findings more generalizable.

Table 1: Variables and Measurements

Variable	Proxy	Measurement	Reference
Dependent Variable	Innovation (R&D)	Percentage of sales revenue allocated to R&D activities	(Fang et al., 2014)
Independent Variable	Initial Public Offering (IPO)	A dummy variable that equals 1 for the firm offering IPO and 0 otherwise.	(Fang et al., 2014)
	Shareholder Activism	1 if activism does persist and 0 otherwise	(Bouaziz et al., 2020)
Control Variable	Trailing PEG Ratio	The firm's P/E ratio divided by its expected earnings growth rate	(Meher & Sharma, 2015)
	Current Ratio	Current assets divided by current liabilities	(Klingenberg et al., 2013)
	Total Debt to Equity Ratio	Total debt divided by shareholders' equity	(Zhang et al., 2019)
	Return on Equity (ROE)	Net income divided by shareholders' equity	(Hertina & Saudi, 2019)
	Dividend Payout Ratio	dividends per share divided by earnings per share	(Gugler, 2003; Yang et al., 2020)

Econometric Approach

The empirical analysis uses the GMM estimator to deal with reverse causality and omitted variable bias. GMM is also well-suited for dynamic panel

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data models and incorporates lagged dependent variables as instruments to make estimates unbiased and consistent (Ullah et al., 2018).

Baseline Model

The baseline model tests for the direct effects of IPO capital allocation on innovation:

$$\text{Innovation}_{it} = \alpha + \beta_1 \text{IPO}_{it} + \beta_2 \text{Control Variables}_{it} + \epsilon_{it} \quad \text{Eq. 1}$$

Where Innovation_{it} is the R&D intensity for firm i at time t, and IPO_{it} captures capital allocation decisions.

Moderation Model

To analyze the moderating role of shareholder activism, an interaction term is included:

$$\text{Innovation}_{it} = \alpha + \beta_1 \text{IPO}_{it} + \gamma_1 \text{Shareholder Activism}_{it} + \gamma_2 (\text{IPO}_{it} \times \text{Shareholder Activism}_{it}) + \beta_3 \text{Control Variables}_{it} + \epsilon_{it} \quad \text{Eq. 2}$$

The interaction term ($\text{IPO}_{it} \times \text{Shareholder Activism}_{it}$) captures the extent to which activism influences the relationship between IPO capital allocation and innovation.

Results and Discussion

The results section elaborates on a rigorous analysis of the relationships between IPO capital allocation, innovation, and the moderating effect of shareholder activism. In high-impact journals, it is best practice to describe findings systematically by using descriptive statistics, correlation matrix, regression results, diagnostic tests, and dynamic panel data estimation using the Generalized Method of Moments (GMM). The discussion then integrates the results with theoretical frameworks and prior literature, underlining their significance and implications.

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Descriptive Statistics

Table 2 gives an overview of the key variables. The descriptive statistics indicate vast variability among firms regarding R&D sales, shareholder activism, internal capital allocation (ALLO), and financial performance measures.

Table 2: Results of Descriptive Analysis

Variable	Observations (Obs)	Mean	Std. Dev.	Min	Max
Research and development sales	337	7.067	47.627	0	610.575
Shareholder activism	441	1.204	2.051	0	19
ALLO	226	-1.514	59.860	-610.576	459.045
Trailing PEG ratio	52	0.383	5.276	-22.490	28.784
Current ratio	314	9.334	11.634	0.058	83.510
Total debt/equity	337	0.978	10.943	-192.367	16.840
Return on equity	306	-0.509	1.953	-20.020	10.615
Dividend payout ratio	112	0.512	1.292	-0.680	10.464

The high standard deviation for R&D sales is 47.63, which indicates that the firms have a great heterogeneity in their innovation expenditures. Shareholder activism has very low mean values, at 1.20, and ranges widely, from 0 to 19, indicating considerable variations in activist engagement among firms. The variable ALLO, internal capital allocation, has a mean close to zero but a large spread from -610.576 to 459.045, which may indicate potential outliers or significant differences in allocation strategies (Andersen & Dejoy, 2011).

Correlation Matrix

Table 3 shows the correlation matrix, which describes the relationships between the principal variables used in the analysis. ALLO has a positive correlation with R&D sales at 0.4712, implying that internal capital allocation indeed drives innovation investments. Shareholder activism has a negative

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correlation with R&D sales of -0.2525, implying a potential conflict between activist pressures and innovation. The current ratio and ALLO have a positive correlation at 0.7929, indicating liquidity support to facilitate internal capital allocation. The debt-to-equity ratio has a negative correlation with R&D sales at -0.4263, consistent with the theoretical linkages that higher leverage is associated with restricted innovation investments (Martínez-Reina et al., 2024; Steppan, 1997).

Table 3: Results of Correlation Analysis

	R&D/ Sales	Activism Shareholders	ALLO	PEG Ratio	Current Ratio	Debt/ Equity Ratio	Return on Equity	Dividend Payout
R&D/ Sales	1							
Shareholder Activism	-0.252							
ALLO	0.471	0.241	1					
PEG Ratio	-0.221	0.005	-0.085	1				
Current Ratio	0.295	0.235	0.792	0.404	1			
Debt/Equity	-0.426	0.019	-0.283	0.234	-0.331	1		
Return on Equity	-0.419	0.085	-0.271	-0.450	-0.478	0.441	1	
Dividend Payout	-0.335	0.011	-0.177	-0.116	-0.425	0.921	0.530	1

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Pooled OLS Regression Results

Table 4 shows the summary results of the Ordinary Least Squares regression of the effects of financial and governance variables on R&D sales. The model explains 66.85% of the variance in R&D sales, but most variables do not show strong statistical significance. Shareholder activism has a negative, albeit insignificant, effect on R&D. Return on equity shows a negative and marginally significant relationship (p = 0.073), which suggests that higher returns may deprioritize innovation investments.

Table 4: Results of Pooled OLS Regression Analysis

Variable	Coefficient	Std. Err.	T	*p*> t
Shareholder activism	-0.015	0.009	-1.55	0.160
Trailing PEG ratio	-0.010	0.005	-1.80	0.109
Current ratio	-0.003	0.036	-0.09	0.930
Total debt/equity	0.033	0.020	1.69	0.130
Return on equity	-0.265	0.129	-2.06	0.073
Dividend payout ratio	-0.099	0.057	-1.75	0.119
ALLO	4.106	4.107	1.00	0.347
Intercept	0.081	0.054	1.51	0.170

Breusch-Pagan Test for Heteroskedasticity

Table 5 Results of the Breusch-Pagan Test

Test Statistic (χ^2)	P-value
4.74	0.000

The Breusch-Pagan test detects significant heteroskedasticity (p<0.001p < 0.001p<0.001), which means that the error variances are not constant across

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Print ISSN: 3006-4651
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observations. This calls for robust standard errors or alternative estimation techniques like GLS to address this issue.

Dynamic Panel Data Estimation (System GMM)

The results are now reported using GMM, estimating two models (M1 and M2) that seek to study the determinants of research and development spending by including the impact of internal capital allocation, shareholder activism, and financial ratios. The diagnostic checks cover the instruments' validity, possible autocorrelation, and over-identification problems.

Table 6: Results of Dynamic Panel Data Estimation (Model 1)

Variables	Coefficient	Std. Err.	Z	*p* > z
ALLO	3.950	1.246	3.17	0.002
Trailing P/E to Growth	-0.009	0.001	-5.52	0.000
Current Ratio	-0.009	0.011	-0.87	0.386
Total Debt/Equity	0.030	0.006	5.09	0.000
Return on Equity	-0.281	0.039	-7.21	0.000
Dividend Payout Ratio	-0.091	0.017	-5.32	0.000
Constant (_cons)	0.084	0.016	5.16	0.000

ALLO has a strong positive effect on R&D spending (β=3.950, p = 0.002), which implies that good internal capital allocation has an incentive for innovation. Return on Equity has a strong negative effect on R&D (β=–0.281, p = 0.000), indicating that profitable firms tend to reduce their investment in R&D. Dividend Payout Ratio also has a negative effect on R&D (β=–0.091, p = 0.000), which indicates that shareholder returns-oriented firms may under-invest in innovation.

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Table 7: Arellano-Bond Test for Autocorrelation (Model 1)

Test	Z	P > z
AR (1) in first differences	-0.15	0.879
AR (2) in first differences	.	.

The insignificant AR (1) result (p=0.879) indicates no first-order autocorrelation, confirming the validity of the GMM estimator.

The Sargan test's significance (p=0.000) raises concerns about instrument over-identification, possibly indicating too many instruments or violations of exogeneity.

Table 8: Sargan Test of Over-Identifying Restrictions (Model 1)

Test	chi2	P > chi2
Sargan Test (Overall)	112.83	0.000
Difference (H_0: Exogenous)	112.56	0.000

Table 9: Results of Dynamic Panel Data Estimation (Model 2)

Variables	Coefficient	Std. Err.	Z	*p* > z
Shareholder Activism	-0.005	0.002	-2.47	0.014
Trailing P/E to Growth	-0.001	0.000	-1.61	0.107
Current Ratio	0.010	0.003	2.68	0.007
Total Debt/Equity	-0.006	0.003	-1.90	0.057
Return on Equity	-0.085	0.022	-3.90	0.000
Dividend Payout Ratio	0.013	0.010	1.35	0.178
Constant (_cons)	0.062	0.010	5.73	0.000

Shareholder activism negatively impacts R&D (β=–0.005, p = 0.014), indicating that activism pressures may reduce innovation investments. The current ratio positively impacts R&D (β=0.010, p = 0.007), suggesting that liquidity

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Online ISSN: 3006-466X

enhances a firm's capacity to invest in innovation. Return on equity remains a significant negative predictor (β=–0.085, p = 0.000).

Table 10: Arellano-Bond Test for Autocorrelation (Model 2)

Test	Z	P > z
AR (1) in first differences	-0.45	0.656
AR (2) in first differences	-2.32	0.020

AR (1) indicates no first-order autocorrelation, while the significant AR (2) test (p=0.020) suggests the presence of second-order autocorrelation, potentially requiring further refinement of the model.

Table 11: Sargan Test of Over-Identifying Restrictions (Model 2)

Test	chi2	P > chi2
Sargan Test (Overall)	239.74	0.000
Difference (H_0 Exogenous)	237.53	0.000

The Sargan test's significant results (p=0.000) suggest over-identification issues, though difference-in-Sargan tests support the exogeneity of instruments in subsets (p=0.948). The GMM results show the dynamic nature of innovation investm ents. Internal capital allocation, or ALLO, has a positive effect on R&D spending, thereby reaffirming its role as a key driver of innovation. Shareholder activism, while encouraging accountability, seems to limit R&D investments, thus creating a possible tension between short-term oversight and long-term innovation objectives. Finally, the negative impact of financial performance metrics such as return on equity underlines the need for firms to balance profitability with strategic innovation goals.

Conclusion

This study employs dynamic panel data techniques to analyze the nexus among internal capital allocation, innovation, and shareholder activism for firms in their IPO phase. The research findings offer a significant contribution to the

literature on both corporate finance and innovation. The innovation results indicate that proper internal capital allocation post-IPO is the critical catalyst for innovation. Firms that strategically invest IPO proceeds in R&D activities achieve better innovation outcomes, reflected in higher R&D intensity. This underscores the role of managerial decision-making in exploiting new capital for long-term value creation. The findings of the study support the resource-based competitive advantage theory. Two recent studies conducted by Ge et al. (2024) and Liu and Suzuki (2024) reported similar findings. These studies established that funds raised through IPOs relieve financial constraints, and enhance the firms' ability to allocate more earnings to R&D activities. Aliano et al., (2024) also emphasized the availability of funds from financial markets to firms enables them to invest more earnings in innovation.

However, the study also identifies critical challenges posed by shareholder activism, enabling and constraining innovation. Although shareholder oversight can improve governance efficiency, high activism might deter investments in uncertain and long-term projects like R&D. The findings are supported by the Agency theory i.e., activist shareholders can play a mitigating role in agency problems by making managerial actions respond to shareholder interests (Jensen & Meckling, 2019; Lily & Susilawati, 2024). It is argued that excessive pressure from shareholder activism can discourage investments in high-risk, uncertain projects, such as R&D initiatives, thereby hindering innovation (Freund et al., 2024).

Furthermore, the findings show that firm-level financial factors, including return on equity and dividend payout ratios, are very significant factors influencing R&D investments. More profitable firms with high returns to shareholders may become less innovative, which might jeopardize long-term competitiveness. Liquidity, captured by the current ratio, comes out as an enabler of R&D investments, pointing out that financial flexibility should be maintained for innovation-led growth. These findings have very important theoretical,

managerial, and policy implications. This study theoretically extends the knowledge about how IPO capital allocation and governance mechanisms shape innovation performance, especially in public firms. This article takes a resource-based theory approach to incorporating agency theory to present an intricate view of corporate innovation and the interrelation of internal resources with external oversight.

For managers, it emphasizes the need to balance shareholder expectations of short-termism with innovation strategies for long-run innovation. Firms would have to communicate the strategic importance of R&D investment to shareholders to reduce some activism-driven constraints. Alignment policies for shareholder activism with innovation goals can mitigate the adverse impacts of long-run value creation. From a policy point of view, the paper emphasizes the importance of regulatory policies that promote innovation investment by firms while protecting managerial discretion against excessive short-termism. Measures to promote responsible shareholder activism and innovation-friendly environments would allow firms to maintain their competitiveness in dynamic markets.

This study provides insights into the determinants of innovation in firms going public, where internal capital allocation and shareholder activism play central roles. While these results contribute to academic knowledge, they also open up many questions for further research. For example, future research could look at cross-industry variations in the observed relationships or study the role of institutional environments in shaping the dynamics of IPO capital allocation, shareholder activism, and innovation. In so doing, future research can add value to this study's contributions and better inform the way sustainable innovation can be encouraged in public firms.

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Print ISSN: 3006-4651
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