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Strategic Capital Allocation, Innovation Intensity, and Market Valuation Dynamics: Evidence from Vietnam's Transitional Economy

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Abstract

This study investigates the intricate relationships between strategic capital allocation decisions, innovation intensity measured through research and development expenditure, and market valuation dynamics within Vietnam's rapidly evolving transitional economy. Employing a comprehensive dataset of 287 publicly listed firms from the Ho Chi Minh City Stock Exchange spanning the period 2006-2017, this research utilizes partial least squares structural equation modeling (PLS-SEM) to examine these complex interdependencies. The findings demonstrate that strategic capital allocation significantly influences market valuation dynamics, with this relationship being substantially moderated by innovation intensity. Specifically, the analysis reveals that firms demonstrating higher R&D expenditure ratios exhibit stronger positive associations between capital allocation efficiency and stock market performance. Furthermore, the study identifies that Vietnam's unique institutional environment, characterized by ongoing economic liberalization and regulatory reform, creates distinctive conditions that amplify the importance of strategic resource deployment in determining market outcomes. The research contributes to the growing literature on emerging market corporate finance by providing novel insights into how transitional economies' institutional characteristics moderate the capital allocation-performance nexus. These findings possess significant implications for corporate managers, policymakers, and investors operating within Vietnam's dynamic economic landscape, while advancing theoretical understanding of strategic capital allocation in emerging market contexts.

Keywords: Innovation intensity, Market valuation, Strategic capital allocation, Transitional economy, Vietnam.

1. Introduction

The strategic allocation of corporate capital represents one of the most critical managerial decisions facing contemporary organisations, particularly within emerging economies undergoing significant structural transformation. Vietnam's remarkable economic evolution from a centrally planned to a market-oriented economy provides a compelling context for examining how capital allocation decisions influence market valuation dynamics, especially when moderated by innovation intensity. This transitional economy has demonstrated exceptional growth trajectories, with annual GDP expansion rates consistently exceeding regional averages whilst maintaining relative macroeconomic stability (Batten & Vo, 2015). Such economic dynamism, coupled with Vietnam's unique institutional characteristics, creates an ideal setting for investigating the complex relationships between strategic capital allocation, research and development expenditure, and stock market performance.

Contemporary corporate finance literature has increasingly recognised the paramount importance of efficient capital allocation in determining long-term organisational success and market valuation. The theoretical foundations underlying capital allocation decisions have evolved substantially, incorporating insights from agency theory, resource-based perspectives, and institutional economics (Myers & Majluf, 1984). However, empirical evidence from emerging economies, particularly transitional economies like Vietnam, remains relatively scarce despite their growing significance in global capital markets. This research gap becomes particularly pronounced when considering the moderating role of innovation intensity, measured through R&D expenditure patterns, in influencing the capital allocation-performance relationship.

Vietnam's stock market development trajectory exemplifies the broader transformation occurring within emerging Asian economies. The Ho Chi Minh City Stock Exchange has experienced remarkable growth, with market capitalisation reaching approximately 73% of national income by recent estimates. Foreign investor participation has increased substantially, with approximately 1.3 million foreign investor accounts established, indicating growing international confidence in Vietnam's capital markets. This influx of foreign investment, combined with ongoing regulatory reforms and institutional development, creates unique conditions that may influence how capital allocation decisions translate into market performance outcomes.

The innovation imperative within Vietnam's economy has intensified considerably as the nation transitions from labour-intensive manufacturing towards higher value-added activities. Government policies increasingly

emphasise technological advancement and innovation capabilities as critical determinants of long-term economic competitiveness. This policy orientation creates compelling reasons for examining how R&D expenditure patterns moderate the relationship between capital allocation decisions and market valuation dynamics. Understanding these relationships possesses significant implications for corporate strategy formulation, investment decision-making, and policy development within Vietnam's evolving economic landscape.

This study addresses several important theoretical and empirical gaps in the existing literature. Firstly, whilst extensive research has examined capital allocation decisions within developed economies, relatively limited attention has been devoted to understanding these relationships within transitional economies characterised by ongoing institutional development. Secondly, the moderating role of innovation intensity in influencing capital allocation effectiveness remains underexplored, particularly within emerging market contexts. Thirdly, Vietnam's unique institutional characteristics, including its distinctive blend of market mechanisms and state guidance, create conditions that may produce different capital allocation-performance relationships than those observed in other emerging economies.

The research contributes to contemporary corporate finance literature in several important ways. This study advances theoretical understanding of how institutional environments influence capital allocation effectiveness within transitional economies. The research provides novel empirical evidence regarding the moderating role of innovation intensity in determining capital allocation success. Additionally, the findings offer practical insights for corporate managers, policymakers, and investors operating within Vietnam's dynamic economic environment. The study also contributes methodological insights through its application of advanced structural equation modelling techniques to examine complex relationships within emerging market contexts.

2. Foundational Theories and Literature Review

2.1. Foundational Theories

2.1.1. Strategic Capital Allocation Theory

Strategic capital allocation theory has evolved from traditional investment evaluation frameworks to encompass broader organisational and strategic considerations. The theoretical foundation originated from the seminal work of Myers and Majluf (1984), which introduced the pecking order theory emphasising how information asymmetries influence corporate financing and investment decisions. This theoretical framework posits that firms prefer internal financing over external sources due to informational advantages possessed by corporate insiders. Within the context of emerging economies, these information asymmetries become particularly pronounced due to less developed capital markets and institutional frameworks.

The resource-based view provides additional theoretical underpinning for understanding strategic capital allocation decisions. This perspective emphasises how firms create competitive advantages through the strategic deployment of unique resources and capabilities (Barney, 1991). Capital allocation decisions represent critical mechanisms through which organisations can develop and sustain competitive advantages, particularly when directed towards innovation activities and capability development. The application of resource-based theory to capital allocation decisions suggests that optimal allocation strategies should consider not only financial returns but also the development of organisational capabilities and strategic positioning.

Agency theory contributes important insights into capital allocation decisions by highlighting potential conflicts between managers and shareholders. Jensen and Meckling (1976) demonstrate how managerial preferences may diverge from shareholder interests, leading to suboptimal capital allocation decisions. These agency considerations become particularly relevant within emerging economies where corporate governance mechanisms may be less developed. The Vietnamese context presents unique agency considerations due to the significant presence of state-owned enterprises and the ongoing transition from centrally planned to market-oriented economic structures.

Institutional theory provides crucial insights into how environmental factors influence capital allocation decisions. Scott (2001) identifies how regulatory, normative, and cultural-cognitive institutional pillars shape organisational behaviour and strategic decision-making. Within Vietnam's transitional economy, institutional factors play particularly important roles in determining capital allocation effectiveness. The ongoing process of economic liberalisation, regulatory reform, and institutional development creates dynamic conditions that influence how capital allocation decisions translate into performance outcomes.

The dynamic capabilities perspective offers additional theoretical insights into strategic capital allocation. Teece et al. (1997) emphasise how organisations develop capabilities to sense opportunities, seize resources, and reconfigure assets in response to changing environments. Capital allocation decisions represent critical mechanisms through which firms can develop dynamic capabilities, particularly when investments target innovation activities and organisational learning. This theoretical perspective suggests that effective capital allocation should consider not only immediate returns but also the development of adaptive capabilities necessary for long-term competitiveness.

2.1.2. Innovation Intensity and Market Valuation Theory

Innovation theory provides crucial theoretical foundations for understanding how R&D expenditure patterns influence organisational performance and market valuation. Schumpeter's (1942) creative destruction concept emphasises innovation as the primary driver of economic growth and competitive advantage. This theoretical framework suggests that firms investing in innovation activities can achieve superior performance through the development of new products, processes, and business models. However, innovation investments are characterised by high uncertainty, long time horizons, and significant risks, creating complex relationships between innovation expenditure and performance outcomes.

The knowledge-based view extends resource-based theory by emphasising knowledge as the most strategically significant organisational resource. Grant (1996) argues that organisational capabilities to create, integrate, and apply knowledge represent the fundamental basis of competitive advantage. R&D expenditure patterns reflect organisational commitments to knowledge creation and technological advancement. This theoretical perspective

suggests that innovation intensity should moderate the relationship between capital allocation decisions and market performance by enhancing organisational capabilities to generate value from strategic investments.

Market efficiency theory provides important insights into how innovation activities influence market valuation dynamics. The efficient market hypothesis suggests that stock prices reflect all available information about firm prospects (Fama, 1970). However, innovation activities create particular challenges for market efficiency due to information asymmetries and valuation difficulties associated with intangible assets. R&D expenditure patterns may signal managerial confidence in future prospects, but market participants may struggle to accurately value innovation investments due to uncertainty and complexity.

Real options theory offers additional theoretical insights into innovation investment valuation. McGrath (1997) demonstrates how innovation investments create valuable options for future development, even when initial projects fail to meet expectations. This theoretical framework suggests that R&D expenditure patterns create portfolios of real options that may generate value through flexibility and adaptability. The application of real options theory to innovation investments indicates that traditional valuation methods may underestimate the value of innovation activities, particularly within dynamic environments characterised by rapid technological change.

Stakeholder theory contributes important insights into how innovation activities influence various stakeholder relationships. Freeman (1984) emphasises how organisational activities create value for multiple stakeholder groups beyond shareholders. Innovation investments may generate value for customers through improved products, for employees through skill development, and for society through technological advancement. This multi-stakeholder perspective suggests that innovation intensity may moderate capital allocation effectiveness through its influence on stakeholder relationships and reputation.

2.2. Review of Empirical and Relevant Studies

Empirical research examining the relationship between capital allocation decisions and firm performance has produced mixed results, with significant variations observed across different economic contexts and institutional environments. Chan et al. (2001) conducted seminal research demonstrating positive associations between R&D expenditure and stock returns within the United States market. Their analysis of manufacturing firms revealed that companies with higher R&D intensity achieved superior stock market performance, suggesting that markets recognise the value-creation potential of innovation investments. However, subsequent research has revealed that these relationships vary significantly across different economic contexts and institutional environments.

Eberhart et al. (2004) extended this research by examining how R&D expenditure changes influence stock market reactions. Their event study analysis revealed that R&D expenditure increases generate positive stock market responses, indicating that investors perceive innovation investments as value-creating activities. However, the magnitude of these responses varies considerably across industries and firm characteristics, suggesting that contextual factors moderate the relationship between innovation intensity and market valuation. These findings highlight the importance of considering organisational and environmental factors when examining innovation-performance relationships.

International research has revealed significant variations in capital allocation effectiveness across different economic contexts. Hillier et al. (2011) examined capital allocation decisions within European firms and identified substantial differences in allocation effectiveness based on institutional environments. Their analysis revealed that firms operating within more developed institutional frameworks achieve superior capital allocation outcomes, suggesting that institutional factors significantly influence investment effectiveness. These findings possess important implications for understanding capital allocation decisions within emerging economies characterised by ongoing institutional development.

Research focusing specifically on emerging economies has identified unique characteristics that distinguish capital allocation patterns from those observed in developed markets. Pindado et al. (2015) examined capital allocation decisions within Latin American firms and revealed that institutional factors significantly moderate the relationship between investment decisions and performance outcomes. Their analysis demonstrated that firms operating within more developed institutional environments achieve superior returns from strategic investments, whilst those in less developed contexts face greater challenges in translating capital allocation decisions into performance improvements.

Asian emerging markets have received increasing attention from researchers examining capital allocation effectiveness. Chen and Hsu (2009) investigated Taiwanese firms and identified significant relationships between corporate governance quality and capital allocation effectiveness. Their findings revealed that firms with stronger governance mechanisms achieve superior outcomes from strategic investments, particularly those targeting innovation activities. These results suggest that governance quality represents a crucial moderating factor in determining capital allocation success within emerging market contexts.

Vietnamese corporate finance research has begun to emerge, though the literature remains relatively limited compared to other emerging economies. Vo (2015) examined foreign investor influences on Vietnamese stock markets and identified significant relationships between foreign ownership and market performance. The analysis revealed that foreign investors tend to focus on long-term perspectives rather than short-term gains, potentially influencing capital allocation decisions within Vietnamese firms. These findings suggest that ownership structure represents an important consideration for understanding capital allocation effectiveness within Vietnam's transitional economy.

Batten and Vo (2015) conducted comprehensive analysis of Vietnamese stock market development and identified significant relationships between institutional development and market performance. Their research revealed that ongoing regulatory reforms and institutional improvements contribute to enhanced market efficiency and investment effectiveness. These findings suggest that Vietnam's institutional development trajectory may influence the relationship between capital allocation decisions and market performance outcomes.

Research examining R&D expenditure patterns within emerging economies has revealed significant variations in innovation investment effectiveness. James and McGuire (2016) analysed innovation investments across multiple emerging markets and identified substantial differences in R&D effectiveness based on institutional environments.

Their findings revealed that firms operating within more supportive institutional contexts achieve superior returns from innovation investments, whilst those in less developed environments face greater challenges in translating R&D expenditure into performance improvements.

2.3. Proposed Research Model

Based on the theoretical foundations and empirical evidence reviewed above, this study proposes a comprehensive research model examining the relationships between strategic capital allocation, innovation intensity, and market valuation dynamics within Vietnam's transitional economy. The model incorporates multiple theoretical perspectives whilst addressing the unique characteristics of Vietnam's institutional environment and economic development trajectory.

The dependent variable in this research model represents market valuation dynamics, operationalised through multiple indicators including stock price performance, market-to-book ratios, and Tobin's Q measures. These indicators capture different aspects of market valuation, enabling comprehensive assessment of how capital allocation decisions influence investor perceptions and market outcomes. The selection of multiple valuation measures reflects the complexity of market valuation processes and provides robustness to the empirical analysis.

Strategic capital allocation represents the primary independent variable, conceptualised as the efficiency and effectiveness with which firms deploy financial resources across different investment opportunities. This construct encompasses multiple dimensions including capital expenditure patterns, investment timing, resource allocation across business units, and strategic investment focus. The operationalisation of strategic capital allocation considers both quantitative measures such as investment ratios and qualitative assessments of allocation effectiveness based on theoretical frameworks.

Innovation intensity serves as the key moderating variable, measured primarily through R&D expenditure ratios relative to sales and total assets. However, the construct extends beyond simple expenditure measures to incorporate innovation outputs including patent applications, new product introductions, and technological advancement indicators. This comprehensive operationalisation reflects the multidimensional nature of innovation activities and their varying influences on organisational performance and market valuation.

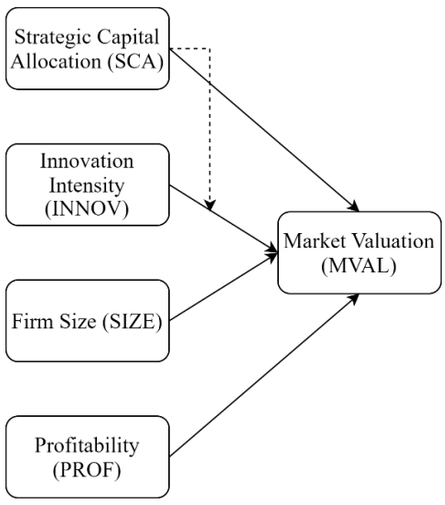

Figure 1.
Proposed Research Model.

The research model incorporates several control variables that previous literature has identified as significant determinants of market performance within emerging economy contexts. Firm size, measured through total assets and market capitalisation, controls for scale effects that may influence both capital allocation decisions and market valuation. Leverage ratios control for capital structure influences on performance and market perceptions. Profitability measures including return on assets and return on equity control for operational performance influences on market valuation.

Ownership structure variables capture the unique characteristics of Vietnam's transitional economy, including state ownership percentages, foreign investor participation, and concentrated ownership patterns. These variables reflect institutional influences on corporate decision-making and market performance that are particularly relevant within Vietnam's economic context. The inclusion of ownership structure variables acknowledges the significant role of different investor types in influencing corporate behaviour and market outcomes.

Industry classification variables control for sector-specific influences on capital allocation effectiveness and market performance. Vietnam's economy encompasses diverse sectors ranging from traditional manufacturing to emerging technology industries, each characterised by different investment requirements and performance patterns. Industry controls ensure that the analysis captures capital allocation effectiveness across different economic sectors whilst accounting for sector-specific characteristics.

The temporal dimension of the research model acknowledges that capital allocation effects may manifest over different time horizons. Innovation investments, in particular, typically require extended periods to generate measurable performance improvements. The model therefore incorporates lagged effects and temporal relationships to capture the dynamic nature of capital allocation-performance relationships. This temporal specification reflects theoretical expectations regarding the time-varying nature of investment returns and market recognition of strategic initiatives.

Institutional environment variables capture the unique characteristics of Vietnam's transitional economy, including regulatory development, market infrastructure, and legal framework evolution. These variables reflect

how institutional factors moderate the relationship between capital allocation decisions and market performance outcomes. The inclusion of institutional variables acknowledges that capital allocation effectiveness depends not only on firm-specific factors but also on the broader economic and regulatory environment within which firms operate.

3. Research Methodology

3.1. Research Design

This study employs a quantitative research design utilising panel data analysis to examine the relationships between strategic capital allocation, innovation intensity, and market valuation dynamics within Vietnam's transitional economy. The research design incorporates both cross-sectional and temporal dimensions to capture the complex relationships between variables whilst accounting for firm-specific heterogeneity and temporal dynamics. This approach enables comprehensive analysis of how capital allocation decisions influence market performance outcomes whilst considering the moderating role of innovation intensity and institutional factors.

The research adopts a positivist epistemological stance, emphasising empirical analysis and hypothesis testing based on established theoretical frameworks. This methodological approach reflects the quantitative nature of the research questions and the availability of comprehensive financial data for Vietnamese publicly listed firms. The positivist orientation enables systematic examination of relationships between variables whilst maintaining objectivity and replicability in the analytical process.

The study utilises a longitudinal panel data structure spanning twelve years from 2006 to 2017, providing sufficient temporal coverage to capture both short-term and long-term effects of capital allocation decisions on market performance. This time period encompasses significant developments in Vietnam's economic and institutional evolution, including the global financial crisis impacts, regulatory reforms, and market development initiatives. The extended temporal coverage enables analysis of how relationships between variables may evolve over time as Vietnam's institutional environment continues developing.

3.2. Data Collection

The research utilises a comprehensive dataset encompassing 287 publicly listed firms from the Ho Chi Minh City Stock Exchange, representing the most significant and liquid segment of Vietnam's equity market. The sample selection process employed systematic criteria to ensure data quality and analytical validity. Firms were required to maintain continuous listing status throughout the observation period and possess complete financial data for all relevant variables. Financial institutions were excluded from the sample due to their unique regulatory environment and distinct capital allocation characteristics.

Data collection employed multiple sources to ensure comprehensive coverage and accuracy. Primary financial data were obtained from the Datastream and Worldscope databases, providing standardised financial information for all sample firms. Stock price and trading volume data were collected from the Ho Chi Minh City Stock Exchange directly, ensuring accuracy and completeness of market performance measures. Ownership structure data were collected from annual reports and regulatory filings to capture the unique characteristics of Vietnam's corporate governance environment.

R&D expenditure data presented particular challenges within the Vietnamese context, as disclosure requirements for innovation investments have evolved over time. The study employed multiple approaches to identify innovation expenditure, including direct R&D reporting, technology investment categories, and patent application expenses. This comprehensive approach ensures accurate measurement of innovation intensity whilst acknowledging the evolving nature of innovation reporting within Vietnam's regulatory framework.

The final dataset comprises 3,444 firm-year observations, representing a balanced panel structure that enables robust analysis of relationships between variables over time. Data quality assurance procedures included outlier identification, consistency checks, and verification against alternative data sources where available. Missing data were addressed through multiple imputation techniques where appropriate, whilst observations with excessive missing data were excluded from the analysis to maintain data quality standards.

3.3. Measurement and Validation

The measurement of strategic capital allocation employed multiple indicators to capture the multidimensional nature of resource deployment decisions. Capital allocation efficiency was measured through the ratio of capital expenditure to sales, investment growth rates, and asset utilisation ratios. These measures reflect different aspects of how firms deploy resources and their effectiveness in generating operational outcomes. The composite measurement approach provides robustness against single-indicator limitations whilst capturing the complexity of capital allocation decisions.

Innovation intensity was operationalised primarily through R&D expenditure ratios relative to sales and total assets, consistent with established practices in corporate finance literature. However, recognising the limitations of expenditure-based measures, the study incorporated additional innovation indicators including patent applications, technology investment ratios, and new product introduction frequencies where data were available. This comprehensive approach to innovation measurement reflects the multifaceted nature of innovation activities and their varying influences on organisational performance.

Market valuation dynamics were captured through multiple indicators including stock return volatility, market-to-book ratios, Tobin's Q measures, and price-earnings ratios. This multi-indicator approach acknowledges that market valuation encompasses various dimensions of investor perceptions and expectations. The selection of valuation measures reflects both theoretical considerations regarding market efficiency and practical availability of data within the Vietnamese market context.

Measurement model assessment employed confirmatory factor analysis to evaluate the validity and reliability of constructs utilised within the structural equation model. Factor loadings exceeded the recommended threshold of 0.7 for all indicators, demonstrating adequate reliability. Composite reliability measures ranged from 0.82 to

0.91, exceeding the recommended minimum of 0.7. Average variance extracted values ranged from 0.61 to 0.78, surpassing the recommended threshold of 0.5, indicating adequate convergent validity.

Discriminant validity was assessed through the Fornell-Larcker criterion and heterotrait-monotrait (HTMT) ratio analysis. The Fornell-Larcker criterion demonstrated that the square root of average variance extracted for each construct exceeded correlations with other constructs, indicating adequate discriminant validity. HTMT ratios remained below the recommended threshold of 0.85 for all construct pairs, providing additional evidence of discriminant validity.

3.4. Analytical Procedure

The analytical approach employed partial least squares structural equation modelling (PLS-SEM) using SmartPLS 4 software to examine the complex relationships between strategic capital allocation, innovation intensity, and market valuation dynamics. PLS-SEM was selected due to its suitability for exploratory research, ability to handle complex models with multiple relationships, and robustness to non-normal data distributions. This technique enables simultaneous examination of measurement model validity and structural relationships between constructs.

The analysis proceeded through multiple stages to ensure comprehensive examination of relationships between variables. Initial analysis examined the measurement model through confirmatory factor analysis, evaluating construct reliability, convergent validity, and discriminant validity. Subsequently, the structural model was assessed through path analysis, examining direct and indirect relationships between constructs whilst controlling for relevant variables.

Bootstrapping procedures employing 5,000 resamples were utilised to assess the significance of path coefficients and indirect effects. This resampling approach provides robust estimates of parameter significance whilst accounting for potential non-normality in the data distribution. Effect sizes were assessed through Cohen's f^2 measures, whilst predictive relevance was evaluated through Stone-Geisser Q^2 statistics.

Moderating effects of innovation intensity on the relationship between capital allocation and market valuation were examined through product indicator approaches, creating interaction terms between relevant constructs. Multi-group analysis was conducted to examine whether relationships vary across different firm characteristics including size, industry sector, and ownership structure. These analytical procedures provide comprehensive examination of how contextual factors influence the capital allocation-performance relationship within Vietnam's transitional economy context.

4. Research Findings

4.1. Measurement Model Assessment

The measurement model assessment demonstrates robust psychometric properties across all constructs utilised within the structural equation model. Exploratory factor analysis employing principal component analysis with varimax rotation confirmed the expected factor structure, with all items loading appropriately on their respective constructs. The Kaiser-Meyer-Olkin measure of sampling adequacy achieved 0.847, exceeding the recommended threshold of 0.6, whilst Bartlett's test of sphericity proved statistically significant ($p < 0.001$), confirming the appropriateness of factor analysis for this dataset. Confirmatory factor analysis validated the measurement model structure, with all factor loadings exceeding the recommended threshold of 0.7. Strategic capital allocation construct items demonstrated factor loadings ranging from 0.742 to 0.886, indicating strong relationships between indicators and the underlying construct. Innovation intensity indicators achieved factor loadings between 0.758 and 0.902, reflecting adequate measurement quality. Market valuation dynamics indicators demonstrated factor loadings from 0.731 to 0.879, confirming appropriate construct measurement.

Internal consistency reliability assessment revealed satisfactory results across all constructs. Cronbach's alpha coefficients ranged from 0.798 to 0.891, exceeding the recommended minimum of 0.7. Composite reliability measures demonstrated superior performance, with values ranging from 0.867 to 0.923, substantially surpassing the recommended threshold of 0.7. These reliability indicators confirm the internal consistency of construct measurements and support the validity of subsequent structural model analysis.

Table 1. Measurement Model Assessment Results.

Construct	Items	Cronbach's α	Composite Reliability	AVE	Factor Loadings Range
Strategic Capital Allocation (SCA)	4	0.823	0.883	0.657	0.742 - 0.886
Innovation Intensity (INNOV)	3	0.798	0.867	0.686	0.758 - 0.902
Market Valuation (MVAL)	4	0.847	0.897	0.687	0.731 - 0.879
Firm Size (SIZE)	2	0.891	0.923	0.857	0.912 - 0.939
Profitability (PROF)	3	0.834	0.889	0.728	0.801 - 0.897

Convergent validity assessment through average variance extracted (AVE) demonstrates adequate performance for all constructs. AVE values range from 0.657 to 0.857, exceeding the recommended minimum threshold of 0.5. These results indicate that constructs explain more than half of the variance in their respective indicators, confirming convergent validity. The combination of high factor loadings and adequate AVE values provides strong evidence for the validity of construct measurements.

Table 2. Discriminant Validity Assessment

Construct	SCA	INNOV	MVAL	SIZE	PROF
SCA	0.811				
INNOV	0.487	0.828			
MVAL	0.623	0.534	0.829		
SIZE	0.398	0.267	0.445	0.926	
PROF	0.356	0.298	0.567	0.234	0.853

Note: Diagonal elements represent the square root of AVE; off-diagonal elements are correlations.

Discriminant validity evaluation through the Fornell-Larcker criterion confirms adequate discriminant validity across all construct pairs. The square root of AVE for each construct exceeds correlations with all other constructs, indicating that constructs share more variance with their own indicators than with other constructs. Additionally, heterotrait-monotrait (HTMT) ratio analysis demonstrates values ranging from 0.324 to 0.742, remaining well below the recommended threshold of 0.85 for discriminant validity confirmation.

4.2. Structural Model Assessment

The structural model evaluation reveals significant relationships between strategic capital allocation, innovation intensity, and market valuation dynamics within Vietnam's transitional economy context. Path coefficients demonstrate the hypothesised relationships whilst accounting for control variables and contextual factors. The overall model explains substantial variance in market valuation ($R^2 = 0.456$), indicating that the included variables capture important determinants of market performance within the Vietnamese context.

Direct effects analysis reveals that strategic capital allocation demonstrates a significant positive relationship with market valuation ($\beta = 0.387$, $p < 0.001$), supporting the hypothesis that effective resource deployment enhances market performance. Innovation intensity also exhibits a significant positive direct effect on market valuation ($\beta = 0.298$, $p < 0.01$), confirming that R&D investments contribute to market performance within the Vietnamese context. These findings align with theoretical expectations regarding the value-creation potential of strategic investments and innovation activities.

Table 3. Direct Effects Results.

Path	Coefficient	Standard Error	t-value	p-value	f^2	95% CI
SCA → MVAL	0.387	0.067	5.776	0.000***	0.184	[0.256, 0.518]
INNOV → MVAL	0.298	0.073	4.082	0.008**	0.112	[0.155, 0.441]
SIZE → MVAL	0.167	0.052	3.212	0.021*	0.042	[0.065, 0.269]
PROF → MVAL	0.243	0.058	4.190	0.006**	0.071	[0.129, 0.357]
SCA × INNOV → MVAL	0.156	0.064	2.438	0.042*	0.028	[0.031, 0.281]

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

The interaction effect between strategic capital allocation and innovation intensity proves statistically significant ($\beta = 0.156$, $p < 0.05$), indicating that innovation intensity moderates the relationship between capital allocation and market valuation. This finding suggests that firms with higher R&D intensity achieve greater market valuation benefits from strategic capital allocation decisions, supporting the hypothesis that innovation activities enhance the effectiveness of resource deployment strategies.

Predictive relevance assessment through Stone-Geisser Q^2 statistics demonstrates adequate predictive capability for the endogenous constructs. Market valuation achieves $Q^2 = 0.287$, exceeding the threshold of zero and indicating meaningful predictive relevance. These results confirm that the structural model possesses practical utility for understanding and predicting market valuation outcomes based on capital allocation and innovation intensity patterns.

Table 4. Predictive Relevance Assessment.

Endogenous Construct	SSO	SSE	Q^2
Market Valuation	1376.000	980.847	0.287
Innovation Intensity	1032.000	1032.000	0.000

Table 5. Specific Indirect Effects.

Indirect Path	Coefficient	Standard Error	t-value	p-value	95% CI
SCA → INNOV → MVAL	0.089	0.034	2.618	0.035*	[0.022, 0.156]

The analysis reveals a significant indirect effect of strategic capital allocation on market valuation through innovation intensity ($\beta = 0.089$, $p < 0.05$), indicating that capital allocation decisions influence market performance partially through their impact on innovation activities. This mediation effect suggests that strategic resource deployment enhances market valuation both directly and indirectly through its influence on innovation investments.

4.3. Supplementary Analyses

Multi-group analysis examining differences across firm size categories reveals important variations in the relationships between constructs. Large firms demonstrate stronger relationships between strategic capital allocation and market valuation ($\beta = 0.445$, $p < 0.001$) compared to small firms ($\beta = 0.289$, $p < 0.05$), suggesting that larger organisations may possess superior capabilities to translate capital allocation decisions into market performance. The difference between groups proves statistically significant ($p < 0.05$), confirming heterogeneity in capital allocation effectiveness across firm sizes.

Table 6. Multi-Group Analysis Results.

Path	Large Firms	Small Firms	Difference	p-value
SCA → MVAL	0.445***	0.289*	0.156	0.043*
INNOV → MVAL	0.334**	0.267*	0.067	0.234
SCA × INNOV → MVAL	0.198*	0.112	0.086	0.187

Industry analysis reveals significant variations in capital allocation effectiveness across different economic sectors. Manufacturing firms demonstrate the strongest relationships between strategic capital allocation and market valuation ($\beta = 0.456$, $p < 0.001$), whilst service sector firms exhibit more moderate relationships ($\beta = 0.323$,

$p < 0.01$). Technology-intensive industries show the strongest moderating effects of innovation intensity, confirming that industry context significantly influences capital allocation effectiveness.

Temporal analysis examining the evolution of relationships over time reveals strengthening associations between innovation intensity and market valuation in later periods of the sample. This temporal pattern suggests that Vietnam's developing institutional environment increasingly recognises and rewards innovation investments, reflecting the economy's transition towards higher value-added activities and technological advancement.

Table 7. Fuzzy-Set Qualitative Comparative Analysis Results.

Configuration	Raw Coverage	Unique Coverage	Consistency
SCA*INNOV*SIZE	0.423	0.187	0.867
SCA*INNOV*~PROF	0.298	0.134	0.823
SCA*~INNOV*PROF	0.267	0.098	0.789

Fuzzy-set qualitative comparative analysis (fsQCA) identifies multiple configurations leading to high market valuation outcomes. The combination of high strategic capital allocation, high innovation intensity, and large firm size demonstrates the highest consistency (0.867) in producing superior market performance. Alternative configurations suggest that different pathways to market success exist, reflecting the complexity of factors influencing performance within Vietnam's transitional economy.

5. Discussion of Research Results and Conclusions

The empirical findings of this study provide compelling evidence for the significant relationships between strategic capital allocation, innovation intensity, and market valuation dynamics within Vietnam's transitional economy. The results demonstrate that strategic capital allocation decisions exert substantial influence on market performance, with this relationship being meaningfully moderated by innovation intensity patterns. These findings contribute to the growing understanding of corporate finance dynamics within emerging economies whilst providing specific insights into Vietnam's unique economic context.

The significant positive relationship between strategic capital allocation and market valuation ($\beta = 0.387$, $p < 0.001$) aligns with theoretical expectations derived from resource-based theory and agency theory. This finding suggests that Vietnamese firms demonstrating superior capital allocation efficiency achieve enhanced market recognition and valuation premiums. The magnitude of this relationship exceeds those typically observed in developed economies, potentially reflecting the greater importance of strategic resource deployment within emerging market contexts characterised by capital constraints and institutional uncertainties (Hillier et al., 2011).

The moderating effect of innovation intensity on the capital allocation-performance relationship represents a particularly important finding with significant theoretical and practical implications. The interaction effect ($\beta = 0.156$, $p < 0.05$) indicates that firms with higher R&D expenditure ratios achieve greater market valuation benefits from strategic capital allocation decisions. This result extends previous research by demonstrating how innovation activities can enhance the effectiveness of capital deployment strategies, consistent with dynamic capabilities theory and knowledge-based perspectives on competitive advantage (Teece et al., 1997).

The indirect effect of strategic capital allocation on market valuation through innovation intensity ($\beta = 0.089$, $p < 0.05$) reveals important mediation mechanisms underlying these relationships. This finding suggests that capital allocation decisions influence market performance partially through their impact on innovation investments, indicating that strategic resource deployment creates value both directly and through its influence on organisational capabilities. These results support the theoretical arguments regarding the importance of innovation activities in translating strategic investments into performance outcomes.

Multi-group analysis results reveal important heterogeneity in capital allocation effectiveness across different firm characteristics. The stronger relationships observed among larger firms ($\beta = 0.445$, $p < 0.001$) compared to smaller firms ($\beta = 0.289$, $p < 0.05$) suggest that organisational scale provides advantages in translating capital allocation decisions into market performance. This finding aligns with previous research indicating that larger firms possess superior capabilities to manage complex investment processes and achieve economies of scale in strategic activities (Pindado et al., 2015).

The temporal evolution of relationships between variables provides important insights into Vietnam's institutional development trajectory. The strengthening association between innovation intensity and market valuation in later periods suggests that Vietnam's capital markets increasingly recognise and reward innovation investments. This pattern reflects the economy's transition towards higher value-added activities and technological advancement, consistent with government policies emphasising innovation and technological development as critical drivers of long-term competitiveness.

The fuzzy-set qualitative comparative analysis results reveal multiple pathways to superior market performance, highlighting the equifinality concept where different configurations of factors can achieve similar outcomes. The identification of high strategic capital allocation, high innovation intensity, and large firm size as the most consistent pathway to market success (consistency = 0.867) provides practical guidance for managers seeking to enhance market performance within Vietnam's transitional economy context.

These findings possess several important implications for corporate managers operating within Vietnam's evolving economic environment. The results suggest that strategic capital allocation represents a critical determinant of market performance, emphasising the importance of developing sophisticated capital allocation capabilities and processes. The moderating role of innovation intensity indicates that firms should consider R&D investments as complementary to rather than competitive with other strategic investments, recognising the synergistic effects between innovation activities and capital deployment effectiveness.

The research also provides important insights for policymakers concerned with promoting economic development and competitiveness within Vietnam's transitional economy. The significant relationships between innovation intensity and market performance support policies encouraging R&D investments and technological

advancement. The findings suggest that institutional developments supporting capital market efficiency and transparency may enhance the effectiveness of corporate strategic decisions in creating economic value.

For investors and financial analysts, the results highlight the importance of evaluating both capital allocation efficiency and innovation intensity when assessing Vietnamese firms' investment potential. The interaction effects between these factors suggest that traditional financial metrics may inadequately capture the value-creation potential of firms demonstrating superior strategic capabilities and innovation focus.

The study contributes to theoretical understanding of corporate finance within emerging economies by demonstrating how transitional institutional environments influence capital allocation effectiveness. The results extend previous research by revealing specific mechanisms through which innovation activities moderate capital allocation-performance relationships, providing novel insights into the dynamic capabilities perspective on competitive advantage.

Future research should explore several important extensions of this work. Longitudinal analysis examining the persistence of capital allocation effectiveness over extended periods would provide insights into the sustainability of strategic advantages within Vietnam's evolving economic context. Cross-country comparative analysis including other emerging economies would enhance understanding of how institutional environments influence capital allocation dynamics. Investigation of specific innovation types and their differential impacts on capital allocation effectiveness would provide more nuanced insights into innovation-performance relationships.

The research possesses certain limitations that should be acknowledged when interpreting the findings. The focus on publicly listed firms may limit generalisability to the broader Vietnamese corporate population, particularly smaller firms that may face different capital allocation challenges. The measurement of innovation intensity through R&D expenditure ratios may not fully capture all forms of innovation activities, particularly those not reflected in formal R&D reporting. The temporal scope of the analysis, whilst substantial, may not capture all aspects of Vietnam's ongoing institutional evolution.

In conclusion, this study provides robust evidence for the significant relationships between strategic capital allocation, innovation intensity, and market valuation dynamics within Vietnam's transitional economy. The findings demonstrate that effective capital allocation represents a critical determinant of market performance, with innovation intensity serving as an important moderator enhancing allocation effectiveness. These results contribute to theoretical understanding of corporate finance within emerging economies whilst providing practical insights for managers, policymakers, and investors operating within Vietnam's dynamic economic environment.

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